SC-HMX10
SC-HMX10A
SC-HMX10C
SC-HMX10N
SC-HMX10CN
SC-HMX10ED

High Definition Digital Camcorder

user manual

SAMSUNG
Progressive HD

imagine the possibilities

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www.samsung.com/global/register

SAMSUNG

key features of your HD camcorder

The HD camcorder is capable of recording and playing back both High Definition (HD: 1280x720p) and Standard Definition (SD: 720x480p) image quality. Select the recording image quality, HD (high definition) or SD (standard definition), before recording.

ENJOYING IMAGES WITH HIGH DEFINITION (HD) QUALITY

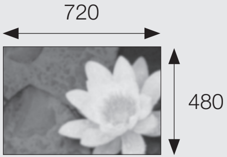
You can view record video with HD (high definition) image quality.

- This HD camcorder offers 720p resolution with a sharper image than previous SD camcorders (480i).
  It also supports widescreen recording with an aspect ratio of 16:9.
- Recordings made in HD (high definition) image quality will fit widescreen (16:9) HDTVs.
  If your TV is not a high definition TV, movies with HD (high definition) image quality will be displayed with SD (standard definition) image quality.
  - To enjoy HD-quality images, you need a TV supporting 1280x720p input.
    (Refer to the user manual of your TV.)
  - To enjoy the HD-quality images, use an HDMI or Component cable.
    The multi-AV cable does not support HD-quality images so it down-converts them to SD-quality images.
- The image is recorded in 720x480p when the quality is set to SD in the HD camcorder.
  Videos recorded at SD (standard definition) image quality cannot be converted to HD (high definition).

HD (high definition) image quality
: 60p (Progressive)

<720p / 16:9 high definition camcorder>

SD (standard definition) image quality
: 60i (interlaced)



<480i / normal digital camcorder>

Image resolution: about 5 times that of previous SD camcorders (480i).

FEATURES OF YOUR NEW HD CAMCORDER

1.61 Mega pixel (Gross) CMOS sensor

1/4.5” CMOS sensor provides stunning detail and clarity with exceptional video (1280 lines of resolution-HD mode or 720 lines of horizontal resolution-SD mode) and still image performance (3.0 mega pixels). Unlike traditional CCD imagers, CMOS sensors require less power, providing better battery performance.

High-capacity embedded flash memory (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only)

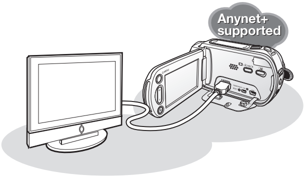
The HD camcorder has built-in high capacity flash memory that allows you to record movie or photo images.

H.264 (MPEG4 part10/AVC) encoding

The latest video compression technology, H.264 uses a high compression rate to sharply increase the recordable time for the same size storage.

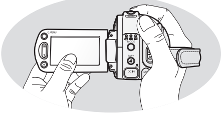
HDMI interface (Anynet+ supported)

- If you have an HDTV with an HDMI jack, you can enjoy a clearer and sharper image when compared to a standard definition TV
- This HD camcorder supports Anynet+.
  Anynet+ is an AV network system that enables you to control all connected Samsung AV devices with an Anynet+ supported Samsung TV remote control. Refer to the corresponding TV’s user manual for more details.



2.7” wide (16:9) touch panel LCD screen (230K pixels)

The 2.7” wide (16:9) LCD screen provides excellent viewing clarity with improved resolution. The 230K pixel LCD screen rotates up to 270 degrees for multiple viewing angles providing sharp, detailed images for monitoring or playback, and the widescreen format makes shooting in 16:9 mode and composing shots even easier.

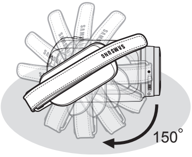


Touch panel adopted

You can play recorded images and set functions by simply tapping on the LCD screen.

Swivel handle for free style shooting

You can adjust the swivel handle’s angle up to 150° to suit the recording situation.



safety warnings

What the icons and signs in this user manual mean;

⚠ WARNING	Means that death or serious personal injury is a risk.
⚠ CAUTION	Means that there is a potential risk for personal injury or material damage.
⚠ CAUTION	To reduce the risk of fire, explosion, electric shock, or personal injury when using your HD camcorder, follow these basic safety precautions:
✎	Means hints or referential pages that may be helpful when operating the HD camcorder.

These warning signs are here to prevent injury to you and others.
Please follow them explicitly. After reading this section, keep it in a safe place for future reference.

important safety instructions

⚡ **CAUTION** ⚠
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

⚡	This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.
⚠	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Warning
To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.”

Caution
Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachment/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
16. VENTILATION:
    Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the CAMCORDER and to protect it from overheating. These openings must not be blocked or covered. Never place your CAMCORDER on a bed, sofa, rug, or other similar surface: on or near a radiator or heat register. This CAMCORDER should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer’s instructions have been adhered to.

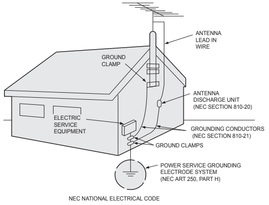
important safety instructions

17. POWER SOURCES:
The CAMCORDER should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply at your home, consult your appliance dealer or local power company. A CAMCORDER is intended to be operated from battery power, or other sources, refer to the operating instructions.

18. GROUNDING OR POLARIZATION:
This CAMCORDER may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.

19. POWER-CORD PROTECTION:
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords or plugs, convenient receptacles, and the point where they exit from the unit.

20. OUTDOOR ANTENNA GROUNDING:
CAMCORDER, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges, Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire and supporting structure, grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding to conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode.


ANTENNA
LEAD IN
WIRE
GROUND
CLAMP
ANTENNA
DISCHARGE UNIT
(NEC SECTION 810-20)
ELECTRIC
SERVICE
EQUIPMENT
GROUNDING CONDUCTORS
(NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ART 250, PART H)
NEC NATIONAL ELECTRICAL CODE

See figure below.

21. LIGHTNING:
For added protection of this CAMCORDER during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the CAMCORDER due to lightning and powerline surges.

22. POWER LINES:
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

23. OVERLOADING:
Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

24. OBJECTS AND LIQUIDS:
Never push objects of any kind into this CAMCORDER through openings as they may touch dangerous voltage points or short out a part that could result in a fire or electric shock. Never spill liquids of any kind onto the CAMCORDER. Should spillage occur, unplug unit and have it checked by a technician before use.

25. SERVICING:
Do not attempt to service this CAMCORDER yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

26. DAMAGE REQUIRING SERVICE:
Unplug this CAMCORDER from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power-supply cord or plug is damaged.
b. If any liquid has been spilled onto, or objects have fallen into the CAMCORDER.
c. If the CAMCORDER has been exposed to rain or water.
d. If the CAMCORDER does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the CAMCORDER to its normal operation.
e. If the CAMCORDER has been dropped or the cabinet has been damaged.
f. When the CAMCORDER exhibits a distinct change in performance, this indicates a need for service.

27. REPLACEMENT PARTS:
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

28. SAFETY CHECK:
Upon completion of any service or repairs to this CAMCORDER, ask the service technician to perform safety checks to determine that the CAMCORDER is in safe operating order.

important safety instructions

29. To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.

30. If this power supply is used at 240V ac, a suitable plug adaptor should be used.

31. This product is covered by one or more of the following U.S. patents:
5,060,220 5,457,669 5,561,649 5,705,762 5,987,417
6,043,912 6,222,983 6,272,096 6,377,524 6,377,531
6,385,587 6,389,570 6,408,408 6,466,532 6,473,736
6,477,501 6,480,829 6,556,520 6,556,521 6,556,522
6,578,163 6,594,208 6,631,110 6,658,588 6,674,697
6,674,957 6,687,455 6,697,307 6,707,985 6,721,243
6,721,493 6,728,474 6,741,535 6,744,713 6,744,972
6,765,853 6,765,853 6,771,890 6,771,891 6,775,465
6,778,755 6,788,629 6,788,630 6,795,637 6,810,201
6,862,256 6,868,054 6,894,963 6,937,552

USER INSTALLER CAUTION:
Your authority to operate this FCC certified equipment could be voided if you make changes or modifications not expressly approved by this party responsible for compliance to part 15 FCC rules.

NOTE:
Hg LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. For details see lamprecycle.org, eiae.org, or call 1-800-Samsung (7267864)

CALIFORNIA USA ONLY

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA

“ Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate.”

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help and for additional suggestions.
  The user may find the following booklet prepared by the Federal Communications Commission helpful: “How to Identify and Resolve Radio-TV Interference Problems.” This Booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning
The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user’s authority to operate the equipment.
This device complies with Part 15 of FCC Rules.
Operation is subject to the following two conditions;
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

precautions

Warning!

- This camcorder should always be connected to an AC outlet with a protective grounding connection.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

Caution

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

If this power supply is used at 240V ac, a suitable plug adapter should be used.

important information on use

BEFORE USING THIS CAMCORDER

- **This HD camcorder records video in H.264 (MPEG4 part10/AVC) format and at High (HD-VIDEO) and Standard Resolution (SD-VIDEO).**
- **Please note that this HD camcorder is not compatible with other digital video formats.**
- **Before recording important video, make a trial recording.**
  Play back your trial recording to make sure the video and audio have been recorded properly.
- **The recorded contents cannot be compensated for:**
  - Samsung cannot compensate for any damage caused when a recording cannot be played back because of a defect in the HD camcorder or memory card.
    Samsung cannot be responsible for your recorded video and audio.
  - Recorded contents may be lost due to a mistake when handling this HD camcorder or memory card, etc. Samsung shall not be responsible for compensation for damages due to the loss of recorded contents.

important information on use

- **Make a backup of important recorded data**
  Protect your important recorded data by copying the files to a PC. We also recommend you copy it from your PC to other recording media for storage. Refer to the software installation and USB connection guide.
- **Copyright: Please note that this HD camcorder is intended for individual use only.**
  Data recorded on the storage media in this HD camcorder using other digital/analog media or devices is protected by the copyright act and cannot be used without permission of the owner of copyright, except for personal enjoyment. Even if you record an event such as a show, performance or exhibition for personal enjoyment, it is strongly recommended that you obtain permission beforehand.

ABOUT THIS USER MANUAL

- **This User Manual covers models SC-HMX10, SC-HMX10A, SC-HMX10C, SC-HMX10N, SC-HMX10CN, and SC-HMX10ED.**
  The SC-HMX10A, SC-HMX10C/HMX10CN, and SC-HMX10ED have a 4GB, 8GB, and 16GB built-in flash memory respectively but also use memory cards. The SC-HMX10/HMX10N does not have built-in flash memory and uses memory cards exclusively.
  Although some features of SC-HMX10, SC-HMX10A, SC-HMX10C, SC-HMX10N, SC-HMX10CN and SC-HMX10ED are different, they operate in the same way.
- Illustrations of model SC-HMX10A are used in this user manual.
- The displays in this user manual may not be exactly the same as those you see on the LCD screen.
- Designs and specifications of the camcorder and other accessories are subject to change without any notice.

NOTES REGARDING TRADEMARKS

- All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.
- Windows® is registered trademark or trademark of Microsoft Corporation, registered in the United States and other countries.
- Macintosh is trademark of Apple Computer, Inc.
- All the other product names mentioned here in may be the trademark or registered trademarks of their respect companies.
- Furthermore, “TM” and “R” are not mentioned in each case in this manual.

precautions when using

IMPORTANT NOTE

- **Handle the liquid crystal display (LCD) with care:**
  - The LCD is a very delicate display device: Do not press its surface with force, hit it or prick it with a sharp object.
  - If you push the LCD surface, unevenness in display may occur. If unevenness does not disappear, turn the camcorder off, wait for a few moments, and then turn it on again.
  - Do not place the camcorder with the open LCD screen down.
  - Close the LCD screen when not using the camcorder.

  Liquid crystal display :
  - The LCD screen of this product uses high precision technology. Among the total number of pixels (approx. 230,000 pixels for LCD screen), 0.01% or less pixels may be missing (black dots) or may remain lit as colored dots (red, blue, green). This shows the limitations of the current technology, and does not indicate a fault that will interfere with recording.
  - The LCD screen will be slightly dimmer than usual when the camcorder is at low temperature, as in cold areas, or immediately after power is turned on. Normal brightness will be restored when the temperature inside the camcorder rises. This has no effect on the images in the storage media, so there is no cause for concern.
- **Hold the HD camcorder correctly:**
  Do not hold the HD camcorder by the LCD screen when lifting it: the LCD screen could detach and the HD camcorder may fall.
- **Do not subject the HD camcorder to impact:**
  - This HD camcorder is a precision machine. Take great care that you do not strike it against a hard object or let it fall.
  - Do not use the HD camcorder on a tripod (not supplied) in a place where it is subject to severe vibration or impact.
- **No sand or dust!**
  Fine sand or dust entering the HD camcorder or AC power adaptor could cause malfunctions or defects.
- **No water or oil!**
  Water or oil entering the HD camcorder or AC power adaptor could cause electric shock, malfunctions or defects.
- **Heat on surface of product:**
  The surface of the HD camcorder will be slightly warm when in use, but this does not indicate a fault.

precautions when using

- **Be careful of ambient temperature:**
  - Using the HD camcorder in a place where the temperature is over 140°F (60°C) or under 32°F (0°C) will result in abnormal recording/playback.
  - Do not leave the HD camcorder on a beach or in a closed vehicle where the temperature is very high for a long time: This could cause a malfunction.
- **Do not point directly at the sun:**
  - If direct sunlight strikes the lens, the HD camcorder could malfunction or a fire could occur.
  - Do not leave the HD camcorder with the LCD screen exposed to direct sunlight: This could cause a malfunction.
- **Do not use the HD camcorder near TV or radio:**
  This could cause noise to appear on the TV screen or on radio broadcasts.
- **Do not use the HD camcorder near strong radio waves or magnetism:**
  If the HD camcorder is used near strong radio waves or magnetism, such as near a radio transmitter or electric appliances, noise could enter video and audio that are being recorded. During playback of normally recorded video and audio, noise may also be present in picture and sound.
- **Do not expose the HD camcorder to soot or steam:**
  Thick soot or steam could damage the HD camcorder case or cause a malfunction.
- **Do not use the HD camcorder near corrosive gas:**
  If the HD camcorder is used in a place where there is dense exhaust gas generated by gasoline or diesel engines, or corrosive gas such as hydrogen sulfide, the external or internal terminals could corrode, disabling normal operation, or the battery connecting terminals could corrode, so that power will not turn on.
- **Do not wipe the HD camcorder body with benzene or thinner:**
  - The exterior coating could peel off or the case surface could deteriorate.
- **Keep the memory card out of reach of children to prevent swallowing.**

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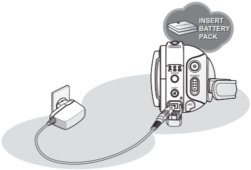
introduction to basic features

This chapter introduces you to the basic features of your HD camcorder.
See the reference pages below for more information.

Step 1

Preparation

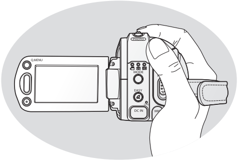
- Charging the battery pack ➥page 13
- Setting the date/time and OSD language ➥pages 24-25
- Setting the storage media (built-in memory or memory card) ➥page 26 (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only)



Step 2

Recording

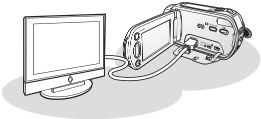
- Recording movie or photo images ➥pages 31, 33



Step 3

Playing back

- Selecting an image to play back from the thumbnail index views ➥pages 39, 41
- Viewing playback from your HD camcorder on your PC or TV ➥pages 43, 89

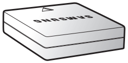


getting to know your HD camcorder

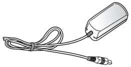
WHAT'S INCLUDED WITH YOUR HD CAMCORDER

Your new HD camcorder comes with the following accessories. If any of these items is missing from your box, call Samsung's Customer Care Center.

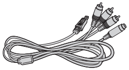
✪ The exact appearance of each item may vary by model.



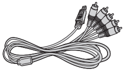
Battery pack
(IA-BP85ST)
(AD43-00180A)



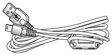
AC power adaptor
(AA-E9 type)
(AD44-00116B)



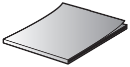
Multi-AV cable
HMX10,HMX10A,HMX10C,
HMX10N,HMX10CN:
(AD39-00119E)
HMX10ED: (AD39-00119F)



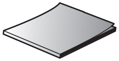
Component cable
HMX10,HMX10A,HMX10C,
HMX10N,HMX10CN:
(AD39-00142B)
HMX10ED: (AD39-00142C)



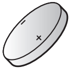
USB cable
HMX10,HMX10A,HMX10C,
HMX10N,HMX10CN:
(AD39-00132B)
HMX10ED: (AD39-00132C)



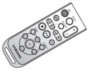
User manual
(AD68-01308A)



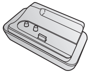
Quick start guide
(AD68-01312A)



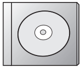
Button type battery
(type: CR2025)
(AD43-10130H)



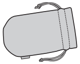
Remote control
(AD59-00153C)



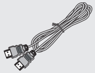
Cradle
HMX10, HMX10A,
HMX10C: (AD97-13010A)
HMX10N, HMX10CN:
(AD97-13010D)
HMX10ED: (AD97-13010G)



Software CD
(AD46-00095A)



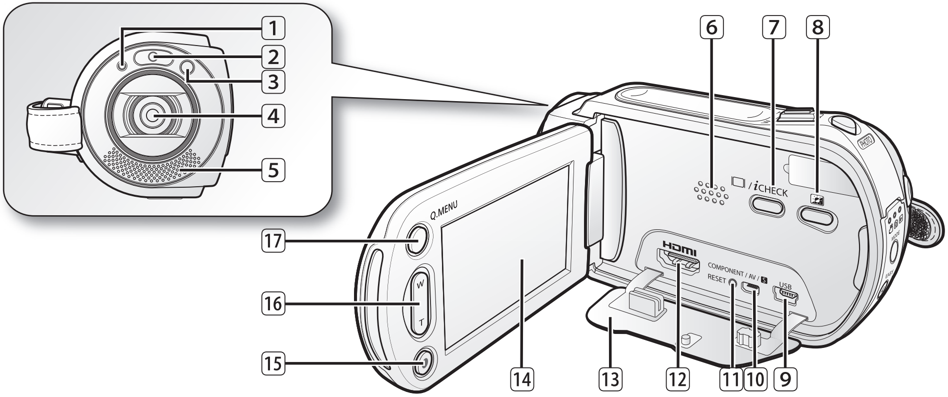
Pouch
(AD69-00932A)



HDMI cable*
(AD39-00149A)

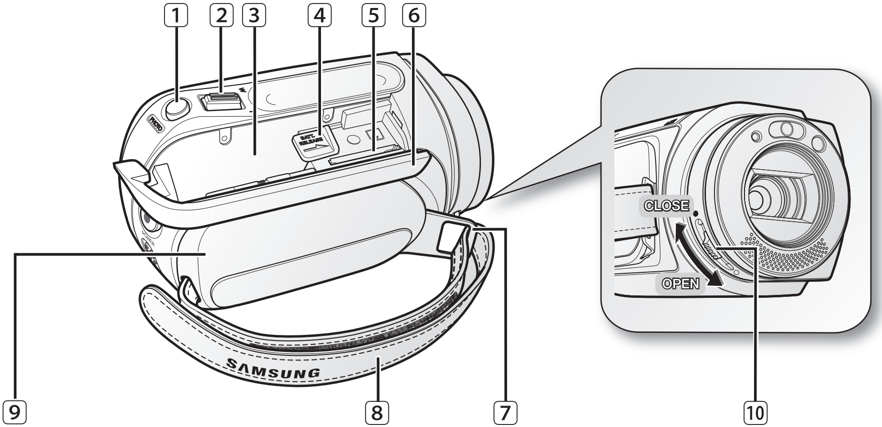
- The contents may vary depending on the sales region.
- Parts and accessories are available at your local Samsung dealer.
- *** :** Not included with your camcorder. To buy this optional accessory, contact your nearest Samsung dealer.
- A memory card is not included. See page 29 for memory cards compatible with your HD camcorder.

FRONT & LEFT VIEW


1
2
3
4
5
6
7
8
/ iCHECK
PHOTO
Q.MENU
W
T
HDMI
COMPONENT / AV / S
RESET
USB
MODE
EASY
17
16
15
14
13
12
11
10
9

1 Recording indicator
2 LED Light
3 Remote sensor
4 Lens
5 Internal microphone
6 Built-in speaker
7 Display (▭) / *i*CHECK button
8 LCD enhancer (▨) button
9 USB jack
10 COMPONENT / AV / S-Video (S) jack
11 RESET button
12 HDMI jack
13 Jack cover
14 TFT LCD screen (Touch panel)
15 Recording start/stop button
16 Zoom (W/T) button
17 Q.MENU button

RIGHT & TOP VIEW


1
2
3
4
5
6
PHOTO
BATT. RELEASE
CLOSE
OPEN
SAMSUNG
9
8
7
10

1	PHOTO button	6	Battery pack / Memory card cover
2	Zoom (W/T) lever	7	Grip belt hook
3	Battery pack slot	8	Grip belt
4	BATT. RELEASE switch	9	Swivel handle
5	Memory card slot	10	Lens open / close switch

REAR & BOTTOM VIEW

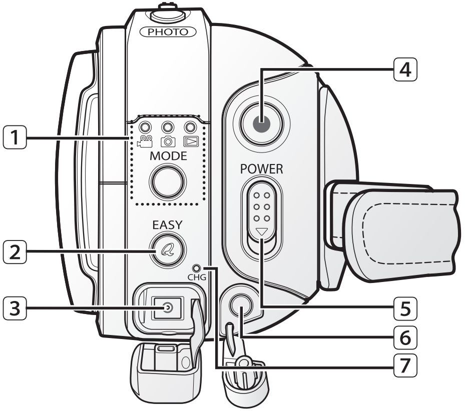
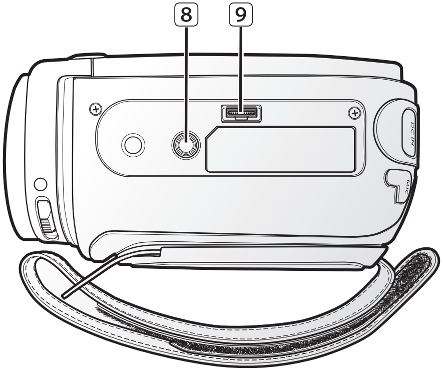


PHOTO
1
MODE
4
POWER
2
EASY
CHG
3
5
6
7

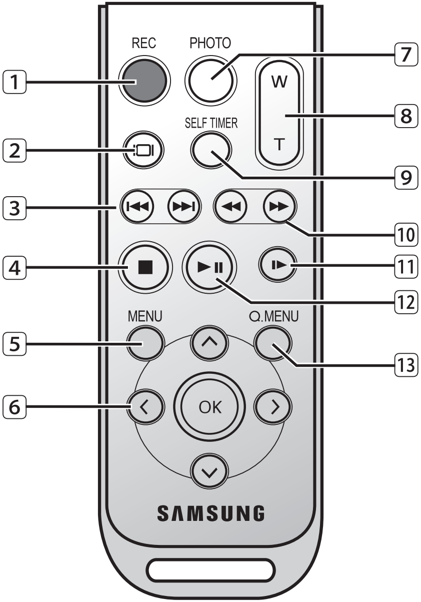


1	MODE button / Mode indicator (Movie (🎥) / Photo (📷) / Play (▷) mode)
2	EASY Q button
3	DC IN jack
4	Recording start/stop button
5	POWER switch
6	External microphone (MIC) jack
7	Charging (CHG) indicator
8	Tripod receptacle
9	Cradle receptacle

preparation

This section provides information on using this HD camcorder; such as how to use the provided accessories, how to charge the battery, how to setup the operation mode and initial setup.

USING THE REMOTE CONTROL


REC
PHOTO
W
T
SELF TIMER
MENU
Q.MENU
OK
SAMSUNG
1
2
3
4
5
6
7
8
9
10
11
12
13

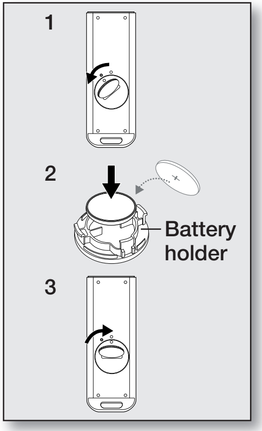
1	REC button
2	DISPLAY (▭) button
3	Skip (⏮/⏭) button
4	Stop (■) button
5	MENU button
6	Control (∧/∨/</>/OK) buttons
7	PHOTO button
8	Zoom (W/T) button
9	SELF TIMER button
10	Search (⏪/⏩) button
11	Slow playback (⏵) button
12	Play/Pause (⏯) button
13	Q.MENU button

The buttons on the remote control function the same as those on the HD camcorder.

INSTALLING THE BUTTON TYPE BATTERY

Installing the button type battery in the remote control

1. Turn the battery holder counterclockwise (as indicated with (⦿) mark) using your fingernail or a coin to open it. The battery holder opens.
2. Insert the battery into the battery holder with the positive (+) terminal facing down and press it firmly until you hear a locking sound.
3. Place the battery holder back in the remote control, match its (⦿) mark with the (○) mark on the remote control, and turn the battery holder clockwise to lock it.



Precautions regarding the button type battery

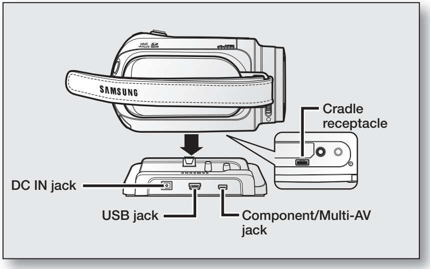
- There is a danger of explosion if button type battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not pick up the battery using tweezers or other metal tools. This will cause a short circuit.
- Do not recharge, disassemble, heat or immerse the battery in water, to avoid the risk of explosion.

WARNING **Keep the button type battery out of the reach of the children. Should any battery be swallowed, consult a doctor immediately.**

USING THE CRADLE

The cradle is a connection plate which can be used to make the camcorder more stable when charging the battery, or connecting to an external device (TV, PC, etc.).

- If you connect your HD camcorder to the provided cradle using more than one type of cable to output image, the order of priority of the output signal is as follows:
  USB cable → Component /Multi-AV cable.
- Do not connect the connection cables at the same time, it may cause conflict and may not work properly. If this occurs, remove all the connected cables and try the connection again.

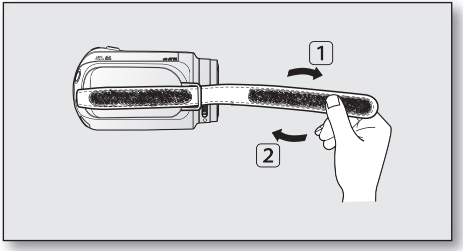


HOLDING THE HD CAMCORDER

Attaching the grip belt

Insert your right hand from the bottom of the HD camcorder up to the base of your thumb.
Put your hand in a position where you can easily operate the **Recording start/stop** button, **PHOTO** button, and the **Zoom** lever.
Adjust the length of grip belt so that the HD camcorder is stable when you press the **Recording start/stop** button with your thumb.

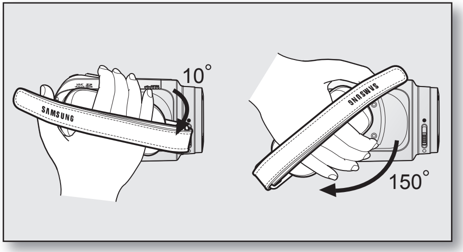
1. Detach the belt.
2. Adjust the length of the grip belt and attach it.



Angle Adjustment

Rotate the swivel handle at the most convenient angle.
You can rotate it downward from 10° to 150°.

Please be careful not to turn the swivel handle backward as it may cause damage.

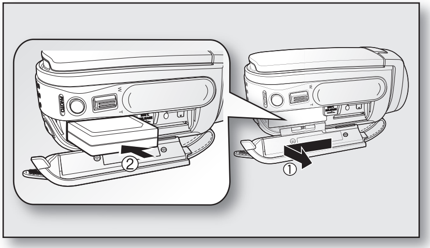


CHARGING THE BATTERY PACK

- Use the **IA-BP85ST** battery pack only.
- The battery pack may be charged a little at the time of purchase.
- Be sure to charge the battery pack before you start using your HD camcorder.

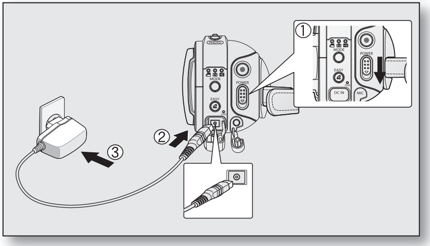
Inserting the battery pack

1. Slide and open the battery pack cover as shown in the figure.
2. Insert the battery pack into the battery pack slot until it softly clicks.
    - Make sure that word mark (SAMSUNG) is facing down while the camcorder is placed as shown in the figure.
3. Slide and close the battery pack cover.



Charging the battery pack

1. Slide the **POWER** switch downward to turn off the power.
2. Open the DC IN jack cover and connect the AC power adaptor to the DC IN jack.
3. Connect the AC power adaptor to a wall socket.
4. Once charged, disconnect the AC power adaptor from the DC IN jack on your HD camcorder.
    - Even with the power switched off, the battery pack will still discharge if it is left inserted in the HD camcorder.



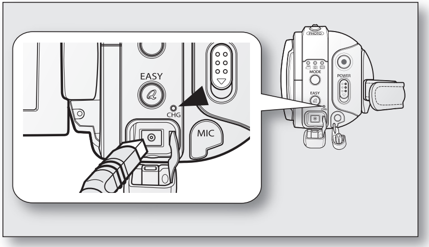
- You can also charge with the cradle. ➥page 11
- It is recommended you purchase one or more additional battery packs to allow continuous use of your HD camcorder.

Use only Samsung-approved battery packs. Do not use batteries from other manufacturers.
Otherwise, there is a danger of overheating, fire or explosion.
Samsung is not responsible for problems occurring due to using unapproved batteries.

Charging indicator

The color of the CHG lamp indicates the power or charging state.

- If the battery pack has been fully charged, the charge indicator is green.
- If you are charging the battery, the color of the charge indicator is orange.
- If an error occurs while the battery pack in charging, the charging indicator blinks green.



<Charging indicator>

Charging, recording and playback times with a fully charged battery pack (with no zoom operation, LCD open, etc.)

Battery type	**IA-BP85ST**	
Charging time	**approx. 80 min**	
Recording format	Continuous recording time	Playback time
HD	approx. 80 min	approx. 100 min
SD	approx. 85 min	approx. 110 min

- Measured times shown above are based on model SC-HMX10A.
  (Times for SC-HMX10/HMX10C/HMX10N/HMX10CN/HMX10ED are almost the same)
- The time is only for reference. Figures showed above are measured under Samsung's test environment, and may differ from your actual use.
- The recording time shortens dramatically in a cold environment. The continuous recording times in the operating instructions are measured using a fully charged battery pack at 77 °F (25 °C). As the environmental temperature and conditions vary, the remaining battery time may differ from the approximate continuous recording times given in the instructions.

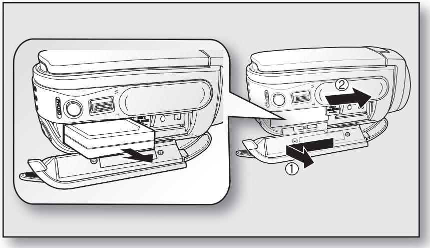
Continuous recording (without zoom)

The times shown in the table reflect the available recording time when the HD camcorder is in the recording mode without using any other functions. In actual recording, the battery pack may discharge 2-3 times faster than this reference since the Record start/stop and Zoom are being operated, and playback is performed. Assume that the recordable time with a fully charged battery pack is between 1/2 and 1/3 of the time in the table, and enough battery packs to allow for the time you are planning to record on the HD camcorder.
Note that the battery pack discharges faster in cold environment.

- The charging time will vary depending on the remaining battery level.
- To check the remaining battery charge, press and hold the **Display (▭)/*i*CHECK** button. →page 22

Ejecting the battery pack

1. Slide and open the battery pack cover.
2. Slide the **BATT. RELEASE** switch and pull out the battery pack.
   - Gently slide the **BATT. RELEASE** switch in the direction as shown in the figure.
3. Slide and close the battery pack cover.



- Additional battery packs are available at your local Samsung dealer.
- If the HD camcorder will not be in use for a while, remove the battery pack from the HD camcorder.

About battery packs

- The battery pack should be recharged in an environment that is between 32°F (0°C) and 104°F (40°C). However, when it is exposed to cold temperatures (below 32°F (0°C)), its usage time becomes reduced and it may cease to function. If this happens, place the battery pack in your pocket or other warm, protected place for a short time, then re-insert it to the HD camcorder.
- Do not put the battery pack near any heat source (i.e. fire or a heater).
- Do not disassemble, apply pressure to, or heat the battery pack.
- Do not allow battery pack terminals to be short-circuited. It may cause leakage, heat generation, induce overheating or fire.

Maintaining the battery pack

- The recording time is affected by temperature and environmental conditions.
- We recommend only using the original battery pack that is available from your Samsung retailer. When the battery reaches the end of its life, please contact your local dealer.
  The batteries have to be dealt with as chemical waste.
- Make sure that the battery pack is fully charged before starting to record.
- To preserve battery power, keep your HD camcorder turned off when you are not operating it.
- Even when the power is switched off, the battery pack will still discharge if it is left inserted on the HD camcorder. If you do not use the HD camcorder for an extended time period, keep it with the battery completely depleted.
- For power saving purposes, the HD camcorder will automatically turn off after 5 minutes in standby mode. (Only if you set "**Auto Power Off**" from the menu to on (" **5 min** ").)
- When fully discharged, a battery pack damages the internal cells. The battery pack may be prone to leakage when fully discharged. Charge the battery pack at least once per 6 months to prevent complete discharge of the battery pack.

About the battery life

Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it is probably time to replace it with a new one.
Each battery's life is affected by storage, operating and environmental conditions.

Using the HD camcorder with the AC power adaptor

It is recommended that you use the AC power adaptor to power the HD camcorder from a household AC outlet when you perform settings on it, play back, or edit images, or use it indoors. ➥page 13

CAUTION

- Before detaching the power source, make sure that the HD camcorder's power is turned off. Failure to do so can result in camcorder malfunction.
- Use a nearby wall outlet when using the AC power adaptor. Disconnect the AC power adaptor from the wall outlet immediately if any malfunction occurs while using your HD camcorder.
- Do not use the AC power adaptor in a narrow space, such as between a wall and furniture.

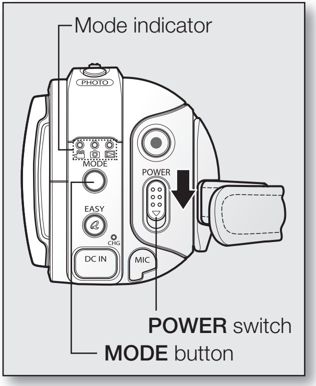
BASIC HD CAMCORDER OPERATION

Set the appropriate operation mode according to your preference using the **POWER** switch and **MODE** button.

Turning the HD camcorder on and off

You can turn the camcorder on or off by sliding the **POWER** switch downward.

- Set the date and time when using your HD camcorder for the first time. ➥page 25
- When you use your HD camcorder for the first time or you reset it, you will see the "**Date/Time Set**" menu for the startup display. If you do not set the date and time, the date and time setting screen appears every time you turn on your camcorder.



Setting the operating modes

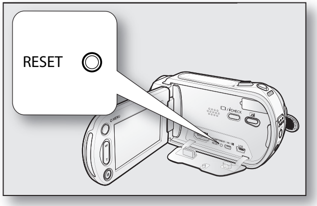
- You can switch the operating mode in the following order each time you press the **MODE** button.
  Movie mode (🎥) → Photo mode (📷) → Play mode (▶) → Movie mode (🎥)
- Each time the operational mode changes, the respective mode indicator lights up.
  - Movie mode (🎥): To record movie images. ➥page 31
  - Photo mode (📷): To record photo images. ➥page 33
  - Play mode (▶): To play movie or photo images, or edit them. ➥page 38

- When the HD camcorder is turned on, the self-diagnosis function operates and a message may appear. In this case, refer to "Warning indicators and messages" (on pages 97-100) and take corrective action.
- Movie mode is set by default with the power on.

System Reset

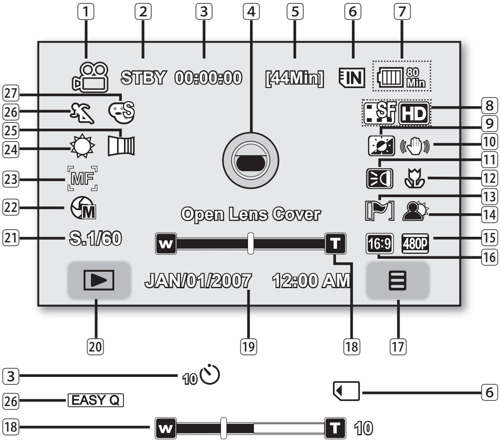
If the HD camcorder does not operate normally, perform "System Reset": The HD camcorder may recover to normal. "System Reset" will reset all settings to factory defaults. The date and time will also be reset: Set the date and time again before using the HD camcorder.

1. Turn the HD camcorder off.
   - Remove the battery pack or AC adaptor.
2. Use a fine tipped pen to hold down the **RESET** button.
   - All settings will be reset.



Do not press the **RESET** button with undue force.

SCREEN INDICATORS



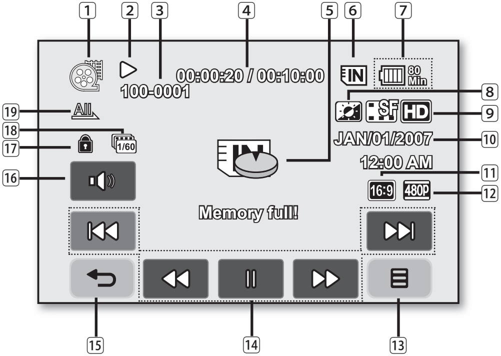
- The OSD indicators are based on memory capacity of 4GB (built-in memory).
- The above screen is an example for explanation: It is different from the actual display.
- Functions marked with * will not be retained when the HD camcorder is powered on after turning it off.
- For enhanced performance, the display indications and the order are subject to change without prior notice.

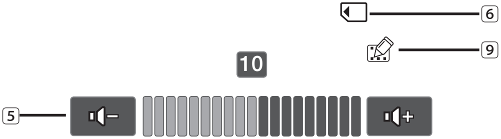
(★) The maximum available recording time displayed is 999 minutes even though the actual available recording time exceeds 999 minutes. However, the actual available recording time is not affected by the count displayed. ➥ page 28
For example, when the actual available recording time is "1,066" minutes, "999" will be displayed on the screen.

Movie record mode

1	Movie record mode
2	Operating mode (STBY (standby) or ● (recording))
3	Time counter (movie recording time) / Self timer*
4	Warning indicators and messages
5	Remaining recordable time (★)
6	Storage media (built-in memory (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) or memory card)
7	Battery info.(remaining battery level/time)
8	Movie image quality
9	LCD enhancer
10	Anti-Shake (EIS)
11	LED light*
12	Tele macro
13	Wind cut
14	Back light
15	Component out (when component cable is connected.)
16	TV type (when component or Multi-AV cable is connected)
17	Menu tab
18	Zoom / Digital zoom position*
19	Date/Time
20	Record/Play mode tab
21	Shutter speed*
22	Manual exposure*
23	Manual focus*
24	White balance
25	Fader*
26	Scene mode (AE) / EASY Q
27	Digital effect*

Movie play mode


1
2
3
4
5
6
7
00:00:20 / 00:10:00
100-0001
IN
80 Min
8
SF
HD
9
JAN/01/2007
10
12:00 AM
11
16:9
480P
12
19
All
18
17
1/60
16
IN
Memory full!
15
14
13



The play related tabs disappear on the screen a few seconds (about 3 seconds) after the image plays back. They reappear when you touch any point on the screen.

1	Movie play mode
2	Operating status (Play/Pause)
3	File name (file number)
4	Time code (elapsed time / recorded time)
5	Warning indicators and messages/Volume control
6	Storage media (built-in memory (SC-HMX10A/ HMX10C/HMX10CN/HMX10ED only) or memory card)
7	Battery info.(Remaining battery level/time)
8	LCD enhancer
9	Movie image quality / Edited movie image indicator (partial delete, divide, combine)
10	Date/Time
11	TV type (when component or Multi-AV cable is connected)
12	Component out (when component cable is connected.)
13	Menu tab
14	Movie play related function tab (Skip / Search / Play / Pause / Slow Playback)
15	Return tab
16	Volume tab
17	Erase protection
18	Cont. Capture
19	Play option

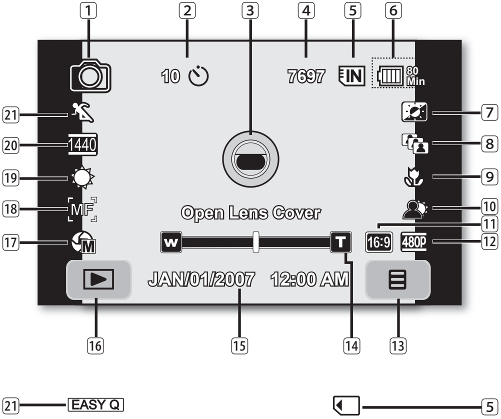

1
2
3
4
5
6
10
7697
IN
80 Min
7
8
9
10
11
12
21
20
1440
19
18
MF
17
M
Open Lens Cover
W
T
16:9
480P
JAN/01/2007 12:00 AM
16
15
14
13
21
EASY Q
5

Photo record mode

1	Photo record mode
2	Self timer*
3	Warning indicators and messages
4	Image counter (total number of recordable photo images) (★)
5	Storage media (built-in memory (SC-HMX10A/ HMX10C/HMX10CN/HMX10ED) or memory card)
6	Battery info.(remaining battery level/time)
7	LCD enhancer
8	Cont. shot
9	Tele macro
10	Back light
11	TV type (when component or Multi-AV cable is connected)
12	Component out (when component cable is connected.)
13	Menu tab
14	Zoom position*
15	Date/Time
16	Record/Play mode tab
17	Manual exposure*
18	Manual focus*
19	White balance
20	Resolution
21	Scene mode (AE) / EASY Q

(★) The maximum number of recordable images displayed is 99,999 even though the actual number of recordable images exceeds 99,999. However, the actual number of recordable images is not affected by the count displayed. ➥ page 28
For example, when the actual number of recordable images is "156,242," "99,999" will be displayed on the screen.

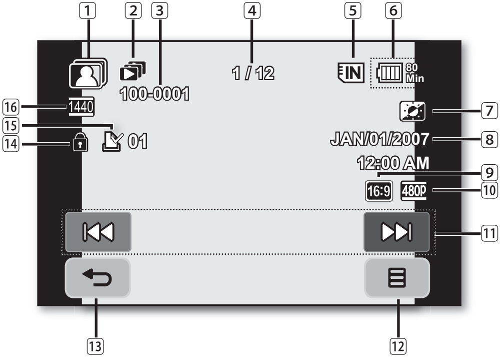

1
2
3
4
5
6
100-0001
1 / 12
IN
80 Min
16
1440
15
14
01
7
JAN/01/2007
8
12:00 AM
9
16:9
480p
10
11
13
12

Photo play mode

1	Photo play mode
2	Slide show / Playback zoom
3	File name (file number)
4	Image counter (current image / total number of recorded images)
5	Storage media (built-in memory (SC-HMX10A/ HMX10C/HMX10CN/HMX10ED only) or memory card)
6	Battery info. (remaining battery level/time)
7	LCD enhancer
8	Date/Time
9	TV type (when component or Multi-AV cable is connected)
10	Component out (when component cable is connected.)
11	Previous image/Next image tab
12	Menu tab
13	Return tab
14	Erase protection
15	Print mark (DPOF)
16	Resolution

USING THE DISPLAY (▭)/*i*CHECK BUTTON

Switching the information display mode

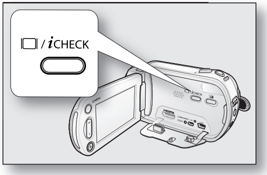
You can switch between the on-screen information display modes:
Press the **Display** (▭)/***i*CHECK** button.
The full and minimum display modes will alternate.

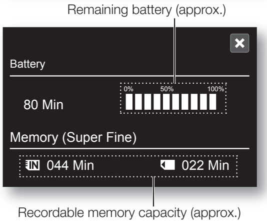
- Full display mode: All information will appear.
- Minimum display mode: Only operating status indicators will appear.
  If the HD camcorder has warning information, a warning message will appear.

Checking the remaining battery and recording capacity

- When the power is on, press and hold the **Display** (▭)/***i*CHECK** button.
- When the power is off, press the **Display** (▭)/***i*CHECK** button.
- After a while, the battery time and approximate recordable time according to the storage and quality appear for about 10 seconds.
  If a storage media is not inserted, its icon does not appear.

Display (▭)/*i*CHECK button does not work in the menu or quick menu screen.




Remaining battery (approx.)
Recordable memory capacity (approx.)

Battery

80 Min 0% 50% 100%

Memory (Super Fine)

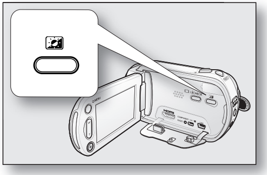
IN 044 Min 022 Min

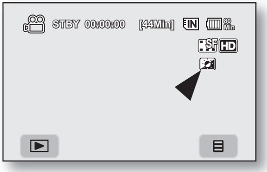
USING THE LCD ENHANCER (◪)

Contrast is enhanced for a clear and bright image. This effect is also implemented outdoors in bright daylight.

1. Press the **LCD enhancer (◪)** button.
   - The (◪) indicator is displayed.
2. To exit LCD enhancer, press the **LCD enhancer (◪)** button again.

- LCD enhancer function does not affect the quality of the image being recorded.
- When LCD enhancer works at the low illumination, some stripes may occur on the LCD screen. It is not a malfunction.





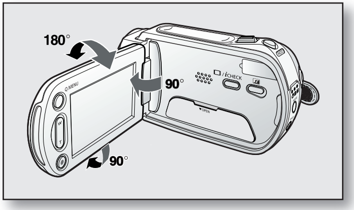
STBY 00:00:00 [44Min] IN 80 Min

SF HD

USING THE LCD SCREEN

Adjusting the LCD screen

1. Open up the LCD screen 90 degrees with your finger.
2. Rotate it to the best angle to record or play.

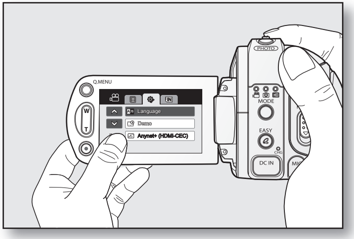


WARNING Do not lift the HD camcorder by holding the LCD screen.

- Over-rotation may cause damage to the inside of the hinge that connects the LCD screen to the HD camcorder.
- See page 67 to adjust the brightness and contrast of the LCD screen.

Using the touch panel

You can play recorded images and set the functions by using the touch panel. Place your hand on the rear side of the LCD panel to support it. Then, touch the items displayed on the screen.



- Be careful not to press the buttons nearby the LCD panel accidentally while using the touch panel.
- The tabs and indicators that appear on the LCD panel depend on the recording/playback status of your HD camcorder at the time.
- To avoid malfunction of the touch screen, please remove and discard the protection film from the screen before using.

INITIAL SETTING: OSD LANGUAGE & DATE AND TIME

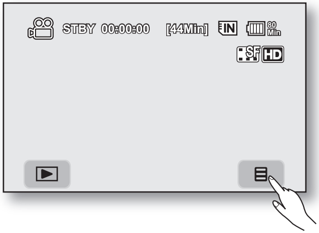
To read the menus or messages in your desired language, set the OSD language.
To store the date and time during recording, set the date/time.

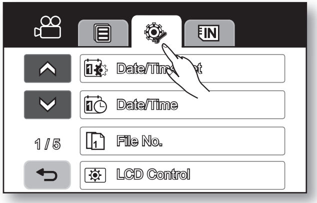
Selecting the OSD language

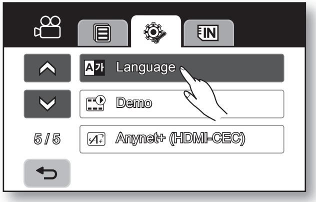
You can select the desired language to display the menu screen and the messages.

1. Touch Menu (▤) tab.
2. Touch Settings (⚙) tab.
3. Touch up (⌃)/down (⌄) tab until “**Language**” is displayed.
4. Touch “**Language**”, then touch the desired OSD language.
   “**English**” → “ **한국어** ” → “**Français**” → “**Deutsch**” → “**Italiano**” → “**Español**” → “**Português**” → “**Nederlands**”→ “**Svenska**” → “**Suomi**” → “**Norsk**” → “**Dansk**” → “**Polski**” → “**Magyar**” → “**Українська**” → “**Русский**” → “ **中文** ” → “**Türkçe**” → “فارسی” → “العربية”
5. To exit, touch Exit (☒) tab or Return (↩) tab repeatedly until menu disappears.
   - The OSD language is refreshed in the selected language.

- Even if the battery pack or AC power are removed, the language setting will be preserved.
- “**Language**” options may be changed without prior notice.


STBY 00:00:00
[44Min]
IN
80 Min
SF
HD

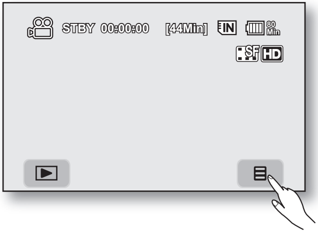

IN
Date/Time Set
Date/Time
1 / 5
File No.
LCD Control

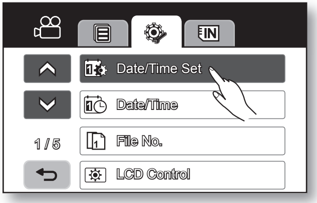

IN
Language
Demo
5 / 5
Anynet+ (HDMI-CEC)

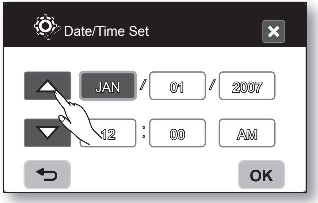
Setting the date and time

Set the date and time when using this HD camcorder for the first time.

1. Touch Menu (☰) tab.
2. Touch Settings (⚙) tab.
3. Touch up (∧)/down (∨) tab until **“Date/Time Set**” is displayed.
4. Touch “**Date/Time Set.**”
5. Touch up (▲)/down (▼) tab to set current month, then touch day field.
6. Set values for day, year, hour, minute, and AM/PM as in setting the month.
7. Touch **OK** (OK) tab when the date and time setting is completed.
   - The message “**Date/Time Changed**” appears, the set date/time is applied.
   - If you touch the Exit (☒) tab, before the Date/Time is set, the menu disappears and the Date/Time is not saved, and when touching Return (↩) tab, the message “Date/Time set is not changed” appears.
8. To exit, Return (↩) tab repeatedly until menu disappears.







- **On charging the built-in rechargeable battery**
  Your camcorder has a built-in rechargeable battery to retain the date, time, and other settings even when the power is off. The built-in rechargeable battery is always charged while your camcorder is connected to the wall outlet via the AC power adaptor or while the battery pack is attached. The rechargeable battery will be fully discharged in about 6 months if you do not use your camcorder at all. Use your camcorder after charging the built-in rechargeable battery. If the built-in rechargeable battery is not charged, any input data will not be backed up and the date/time appears on the screen as “**JAN/01/2007 12:00 AM**” (when “**Date/Time**” display is set to On).
- You can set the year up to 2037.

Turning the date and time display on/off

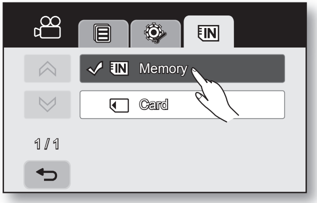
To switch the date and time display on or off, access the menu and change the date/time display mode. ➥page 66

SELECTING THE STORAGE MEDIA (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only)

You can record movie and photo images on the built-in memory or a memory card, so you should select the desired storage media before starting recording or playback.

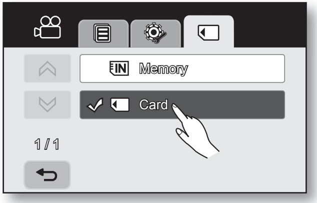
Using the built-in memory

- This HD camcorder has an embedded memory that can be conveniently used to record or playback movie/photo images.
- If you use the built-in memory to make a recording, touch Menu (≡) tab → Storage (IN or ▭) tab → "**Memory.**"



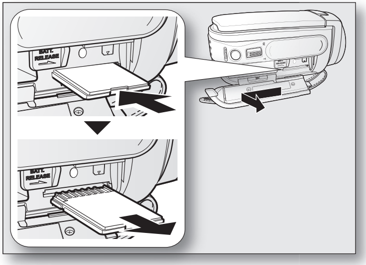
Using a memory card (not supplied)

- This HD camcorder has multi card slot for access to SDHC (Secure Digital High Capacity) and MMCplus cards.
- You can use SDHC and MMCplus cards on your HD camcorder. (Some cards are not compatible depending on the memory card manufacturer and memory card type.)
- Before inserting or ejecting the memory card, turn the HD camcorder off.
- If you use a memory card to make a record, touch Menu (≡) tab → Storage (IN or ▭) tab → "**Card.**"



- Never format the built-in memory or memory card using a PC.
- When you insert a memory card, play thumbnail mode or menu display mode, the storage media setup menu appears.
  Touch "**Yes**" if you want to use a memory card, or "**No**" if not.
- Do not remove the power (battery pack or AC power adaptor) during accessing storage media such as recording, playback, format, delete, etc. The storage media and its data may be damaged.
- Do not eject a memory card while it is being used in the camcorder.
  The memory card and its data may be damaged.

INSERTING/EJECTING A MEMORY CARD



Inserting a memory card

1. Slide and open the memory card cover.
2. Insert the memory card into the slot until it softly clicks.
   - Make sure that the terminal portion is facing up and the camcorder is placed as shown in the figure.
3. Slide and close the memory card cover.

Ejecting a memory card

1. Slide and open the memory card cover.
2. Slightly push the memory card inwards to pop it out.
3. Pull the memory card out of the slot and slide and close the memory card cover.

The HD camcorder supports SDHC and MMCplus memory cards for data storage.
The data storage speed may differ, according to the manufacturer and production system.

- SLC (single level cell) system: faster write speed enabled.
- MLC (multi level cell) system: only lower write speed supported.

For best results, we recommend using a memory card that supports faster write speed.
Using a lower write speed memory card for recording a movie may cause difficulties with storing the movie on the memory card. You may even lose your movie data during the recording.
In an attempt to preserve any bit of the recorded movie, the HD camcorder forcibly stores the movie on the memory card and displays a warning: **"Low Speed Card. Please record a Lower quality"**
If you are unavoidably using a low speed memory card, lower the recording quality by one level "**[HD] Fine,**" "**[HD] Normal.**"
You have five quality options to record a movie with the HD camcorder : "**[HD] Super Fine,**" "**[HD]Fine,**" "**[HD] Normal,**" "**[SD] Standard,**" and "**[SD] Economy.**"
However, the higher the quality, the more memory that will be used.

Actual formatted capacity may be less as the internal firmware uses a portion of the memory.

RECORDABLE TIME AND NUMBER OF IMAGES

Recordable time for movie images

Movie quality	Storage media (Capacity)				
	1GB	2GB	4GB	8GB	16GB
[HD] Super Fine	Approx. 11min	Approx. 22min	Approx. 44min	Approx. 88min	Approx. 176min
[HD] Fine	Approx. 14min	Approx. 29min	Approx. 59min	Approx. 118min	Approx. 236min
[HD] Normal	Approx. 22min	Approx. 44min	Approx. 88min	Approx. 177min	Approx. 354min
[SD] Standard	Approx. 33min	Approx. 67min	Approx. 133min	Approx. 266min	Approx. 532min
[SD] Economy	Approx. 67min	Approx. 133min	Approx. 267min	Approx. 533min	Approx. 1066min

Recordable number of photo images

Photo resolution	Storage media (Capacity)				
	1GB	2GB	4GB	8GB	16GB
2048x1536	Approx. 953	Approx. 1906	Approx. 3813	Approx. 7627	Approx. 15254
1440x1080	Approx. 1929	Approx. 3859	Approx. 7719	Approx. 15439	Approx. 30878
640x480	Approx. 9765	Approx. 19530	Approx. 39060	Approx. 78121	Approx. 156242

- The above figures are measured under Samsung's standard recording test conditions and may differ depending on actual use.
- The HD camcorder provides five quality options for movie recordings: **"[HD] Super Fine," "[HD] Fine," "[HD] Normal," "[SD] Standard," "[SD] Economy."**
  The higher the quality setting, the more memory is used.
- The compression rate increases when choosing lower quality settings. The higher the compression rate is, the longer the recording time will be. However, the image quality will be lower.
- The bit rate automatically adjusts to the recording image, and the recording time may vary accordingly.
- Memory cards of bigger than 32GB in capacity may not work properly.
- The maximum size of a movie file that can be recorded at one time is 2GB.
- To check the remaining memory capacity, press **Display** (▭)/***i*CHECK** button. ➥ page 22
- The maximum available recording time displayed is 999 minutes and the maximum number of recordable images displayed is 99,999.

SELECTING A SUITABLE MEMORY CARD

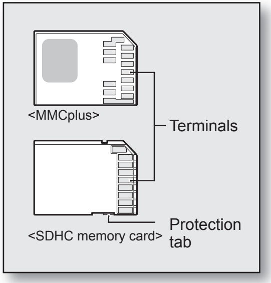
- **You can use a SDHC memory card and MMCplus cards.**
  - You can also use a **SD** memory card, but we recommended that you use a **SDHC** memory card and **MMCplus** with your HD camcorder. (**SD** card supports upto **2GB**.)
- **MultiMediaCards (MMC) are not supported.**
- **On this HD camcorder, you can use memory cards of the following capacity: 128MB ~ 32GB.**
- **Compatible recording media**
  The following recording media have been guaranteed to work with this HD camcorder. Others are not guaranteed to work, so buy such products with caution.
  - **SDHC or SD memory cards**: By Panasonic, SanDisk, and TOSHIBA.
  - **MMCplus**: By Transcend.
- If other media are used, they may fail to record data correctly, or they may lose data that has already been recorded.
- For movie recording, use a memory card that supports faster write speeds (at least 2MB/s).

SDHC (Secure Digital High Capacity) memory card

- SDHC memory card complies with the new SD specification Ver.2.00. This latest specification was established by the SD Card Association to realize data capacity over 2GB.
- The SDHC memory card supports a mechanical write protection switch. Setting the switch prevents accidental erasure of files recorded on the SDHC memory card.
  To enable writing, move the switch up in the direction of the terminals. To set write protection, move the switch down.
- SDHC memory cards can not be used with current SD enabled host devices.

MMCplus (Multi Media Card plus)

- MMCplus cards have no protection tab. Use the protect function in the menu.
  ➥page 79



<Usable memory cards>

Common cautions for memory cards

- Damaged data may not be recovered. It is recommended you back-up important recordings separately on your PC's hard disk.
- After you modify the name of a file or folder stored in the memory card using your PC, your camcorder may not recognize the modified file.

Handling a memory card

- It is recommended that you power off before inserting or removing the memory card to avoid data loss.
- It is not guaranteed that you can use a memory card formatted by other devices. Be sure to format your memory card using this camcorder.
- Memory cards need to be formatted on this camcorder before use.
- If you cannot use a memory card that has been previously used with another device, format it on your HD camcorder. Note that formatting erases all information on the memory card.
- A memory card has a certain life span. If you cannot record new data, you have to purchase a new memory card.
- Do not bend, drop, or cause a strong impact to your memory card.
- Do not use or store in a place that has high temperature and humidity or a dusty environment.
- Do not place foreign substances on the memory card terminals. Use a soft dry cloth to clean the terminals if required.
- Do not put any additional labels on the memory card.
- Be careful to keep memory card out of the reach of children, who might swallow it.

Note on use

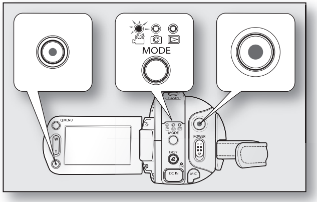
- Samsung is not responsible for data loss due to misuse.
- We recommend using a memory card case to avoid losing data from moving and static electricity.
- After a period of use, the memory card may get warm. This is normal and is not a malfunction.

recording

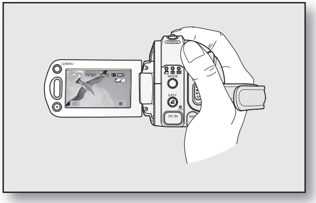
Basic procedures to record a movie or photo image are described below and on the following pages.

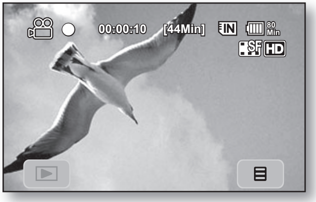
RECORDING MOVIE IMAGES

- You can record movie images in Movie mode only. ➥page 17
- This HD camcorder provides two **Recording start/stop** buttons. One is on the rear side of the camcorder and the other is on the LCD panel. Select the **Recording start/stop** button that works best for you.



1. Turn the HD camcorder on.
   - Connect a power source to the HD camcorder.
     (A battery pack or an AC power adaptor) ➥pages 13,16
   - Slide the **POWER** switch downward to turn the HD camcorder on.
   - Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
     (If you want to record on a memory card, insert the memory card.)
2. Check the subject on the LCD screen.
   - Set the **Lens open/close** switch to open (○). ➥page 8
3. Press the **Recording start/stop** button.
   - The recording (●) indicator will display, and recording will start.
   - To stop recording, press the **Recording start/stop** button again.
4. When recording is finished, turn the HD camcorder off.



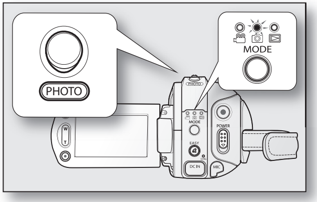


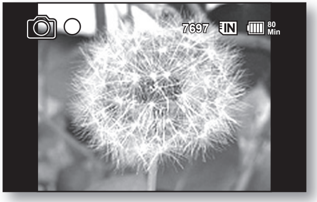
- Movie images are compressed in H.264 (MPEG-4.AVC) format.
- Eject the battery pack when you have finished recording to prevent unnecessary battery power consumption.
- For on-screen information display, see page 18.
- For approximate recording time, see page 28.
- You can record movie images using the remote control.
- Sound is recorded from the internal stereo microphone on the front of the HD camcorder. Take care that this microphone is not blocked.
- Before recording an important movie, make sure to test the recording function by checking if there is any problem with the audio and video recording.
- For various functions available during recording, see “RECORDING MENU ITEMS” on pages 52-64.
- Do not operate the power switch or remove the memory card while accessing the storage media. Doing so may damage the storage media or the data on storage media.
- If the power cable/battery is disconnected or recording is disabled during recording, the system is switched to the data recovery mode. While data is being recovered, no other function is enabled. After data recovery, the system will be switched to the STBY mode. When the recording time is short, the data may fail to be recovered.
- Settings and Storage menu are not available during recording.

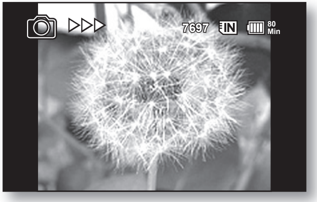
TAKING PHOTO IMAGES

- You can take photo images in Photo mode only. ➥page 17

1. Slide the **POWER** switch downward to turn on the power and press the **MODE** button to set Photo (📷). ➥page 17
    - Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
      (If you want to record on a memory card, insert the memory card.)
2. Check the subject on the LCD screen.
    - Set the **Lens open/close** switch to open (○). ➥page 8
3. Press the **PHOTO** button halfway down (half press).
    - The HD camcorder automatically focuses on the subject at the center of screen (when auto focus is selected).
    - When the image is in focus, the (●) indicator is displayed in green.
4. Press the **PHOTO** button fully down (full press).
    - A shutter sound is heard. When the (▶▶▶) indicator disappears, the photo image has been recorded.
    - While saving the photo image on the storage media, you cannot proceed with the next recording.



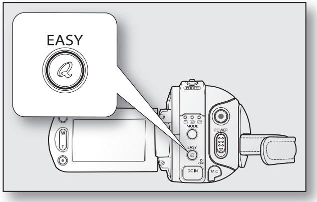




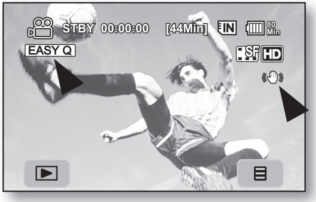
- The number of photo images that can be stored depends on the image quality or the image size. For details, see page 28.
- The photo image is taken only in the 4:3 aspect ratio as shown in the right illustration.
- Audio will not be recorded with the photo image on the storage media.
- If focusing is difficult, use the manual focus function. ➥page 56
- Do not operate the **POWER** switch or remove the memory card while accessing the storage media. Doing so may damage the storage media or the data on storage media.
- Photo image files recorded by your HD camcorder conform to the "DCF (Design rule for Camera File system)" universal standard established by the JEITA (Japan Electronics and Information Technology Industries Association).
- DCF is an integrated image-file format for digital cameras: Image files can be used on all digital devices conforming to DCF.

RECORDING WITH EASE FOR BEGINNERS (EASY Q MODE)

- The EASY Q function is only available with the Movie and Photo modes. ➥page 17
- With the EASY Q function, most of the HD camcorder settings are automatically adjusted, which frees you from making detailed adjustments.



1. Press the **EASY Q** button.
    - When you press the **EASY Q** button, most functions turn off and the following functions are set to "**Auto.**" (Scene Mode, White Balance, Exposure, Anti-Shake, Focus, Shutter).
    - The EASY Q (**EASY Q**) and Anti-shake (✋) indicators appear on the screen at the same time.
2. To record movie images, press the **Recording start/stop** button.
   To take photo images, press the **PHOTO** button.

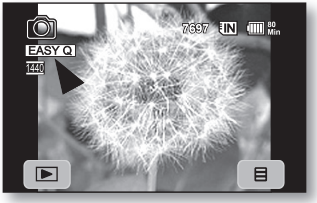


<Movie record mode>

To cancel EASY Q mode

Press the **EASY Q** button again.

- The EASY Q (**EASY Q**) and Anti-shake (✋) indicators disappear from the screen.
- Almost all the settings will return to the settings that were set prior to activating EASY Q mode.

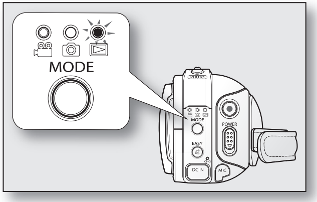


<Photo record mode>

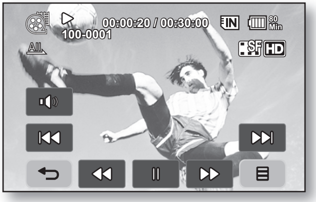
- **Unavailable buttons during EASY Q operation**
  The following buttons and control are unavailable because the items are automatically set. The "**Release the Easy.Q**" messages may appear if unavailable operations are attempted.
    - **MENU** (☰) tab / **Q.MENU** button / etc.
    - See page 109 for the list of unavailable functions.
- Cancel EASY Q function if you want to add any effect or settings to the images.
- Anti-shake is available only in the movie record mode.

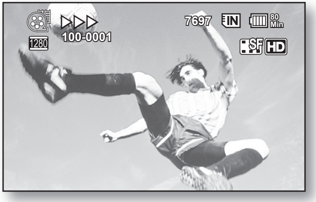
CAPTURING STILL IMAGES DURING MOVIE IMAGES PLAYBACK

- This function works only in Play mode. ➥page 17
- If you press the **PHOTO** button during playback, the camcorder stops playing and saves one image of the current movie scene that is paused.
- Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
  (If you want to record on a memory card, insert the memory card.)


MODE
PHOTO
MODE
POWER
EASY
DC IN
MIC

1. Touch Movie (🎞) tab.
   - To change the current thumbnail page, touch up (˄) or down (˅) tab.
2. Touch the movie image you want.
3. Press the **PHOTO** button halfway down.
   - The playback screen is paused.
4. Press the **PHOTO** button fully down.
   - The still image is recorded on the storage media.


00:00:20 / 00:30:00
100-0001
All
IN
80 Min
SF
HD

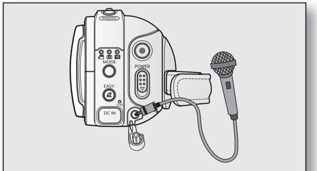

7697
100-0001
1280
IN
80 Min
SF
HD

- The still images copied from the movie images to the storage media are saved. (HD format is saved in a 1280x720, SD format is saved in a 720x480)
- Photo images are compressed in JPEG (Joint Photographic Experts Group) format.

USING THE EXTERNAL MICROPHONE

Connect external microphone (optional-user provided) to the external microphone jack of this HD camcorder for clearer audio recordings. Turn on the switch on microphone and start recording.

- This HD camcorder cannot use a plug-in power type microphone (power supplied from camcorder).
- Only a 3.5 Ø microphone plug can be connected to the HD camcorder.
- The **"Wind Cut"** function is not available when using an external microphone.



To external microphone jack

ZOOMING

This HD camcorder allows you to record using optical 10x power zoom and digital zoom with the **Zoom** lever or the **Zoom** button on the LCD panel.

To zoom in

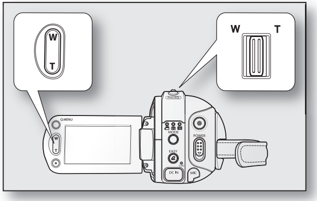
Slide the **Zoom** lever towards **T** (telephoto).
(Or press the **T** (zoom) button on the LCD panel.)

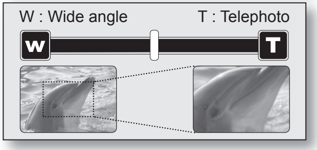
To zoom out

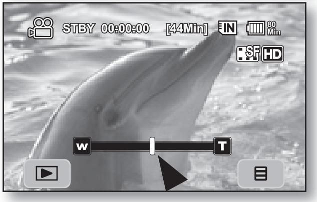
Slide the **Zoom** lever towards **W** (wide-angle).
(Or press the **W** (zoom) button on the LCD panel.)

- The further you slide the **Zoom** lever, the quicker the zoom action.
- Zoom magnification over 10x is done through digital image processing, and is therefore called digital zoom. You can achieve up to 20x magnification by using digital zooming. Set "**Digital Zoom**" to "**On.**" ➥page 62

- Focusing may become unstable during zooming. In this case, set the zoom before recording and lock the focus by using the manual focus. (➥page 56)
- During digital zoom, the image quality may suffer.
- Macro shooting is possible as close as approx. 3 cm (1.2") to the subject when the **Zoom** lever is set all the way to **W**.
- When you zoom into a subject close to the lens, the HD camcorder may automatically zoom out depending on the distance to the subject. In this case, set "**Tele Macro**" to "**On.**" ➥page 59

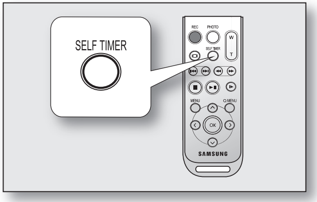






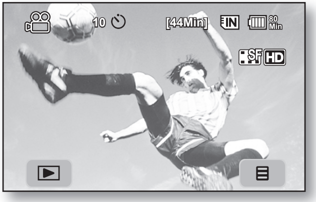
SELF RECORD USING THE REMOTE CONTROL

- The SELF TIMER function works only in Movie and Photo modes. ➥page 17
- When you use the SELF TIMER function on the remote control, recording begins automatically in 10 seconds.

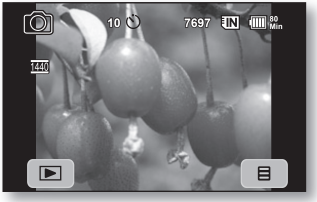


1. Press the **SELF TIMER** button.
   - The (10⏲) indicator is displayed.
2. To record movie images, press the **REC** button.
   To take photo images, press the **PHOTO** button.
   - Self timer starts counting down from 10. At this moment, recording indicator blinks with a beep sound.
   - At the last second of the countdown, recording starts automatically.
   - If you want to cancel the self timer function before recording, press the **SELF TIMER, REC** or **PHOTO** button again.

- Do not obstruct the remote control sensor by putting obstacles between the remote control and HD camcorder.
- The remote control range is 4 to 5 m (13 to 17 ft).
- The effective remote control angle is up to 30 degrees left /right from the center line.
- Using a tripod (not supplied) is recommended during self record.



<Movie record mode>



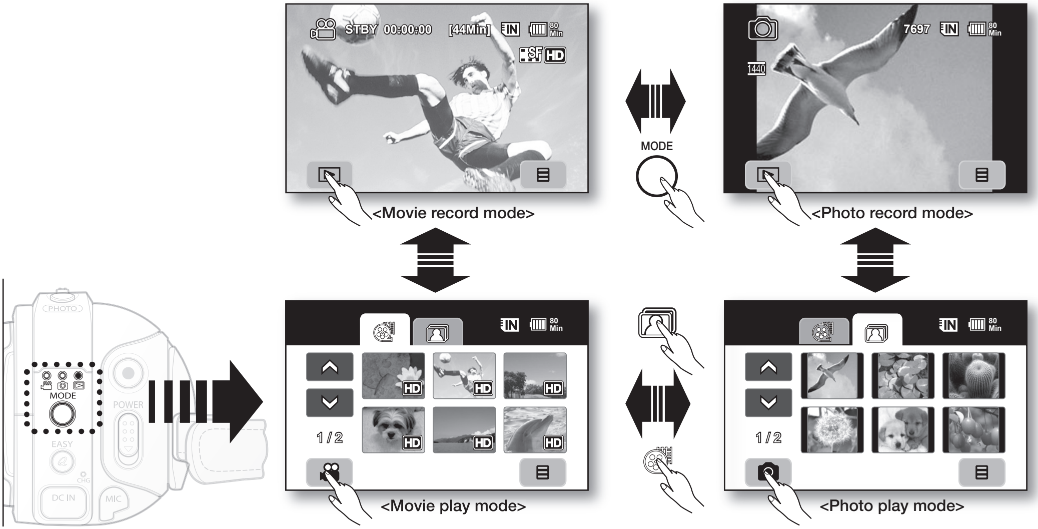
<Photo record mode>

playback

You can view recorded movie and photo images in thumbnail index view and play them in various ways.

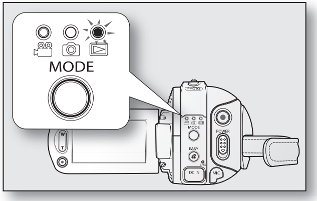
CHANGING THE PLAYBACK MODE

- You can set the movie recording, the photo recording and the play mode in turn with the **MODE** button.
- You can switch the play mode to the recording mode in turn by touching the tab on the lower left of the LCD screen.
- The recorded movie and photo images are displayed in thumbnail index view.

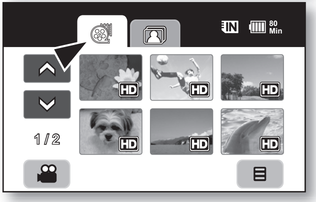

STBY 00:00:00 [44Min]
IN
80 Min
SF HD
<Movie record mode>
MODE
7697
1440
<Photo record mode>
1/2
HD
<Movie play mode>
<Photo play mode>
PHOTO
MODE
POWER
EASY
CHG
DC IN
MIC

PLAYING MOVIE IMAGES

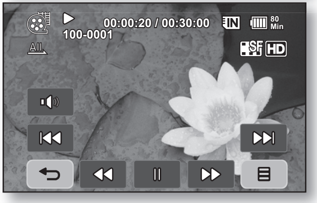
- This function works only in Play Mode. ➥page 17
- You can find a desired movie image quickly using thumbnail index views.
- You can also use the playback related buttons on the remote control. ➥page 40



1. Slide the **POWER** switch downward to turn on the power and press the **MODE** button to set Play (▷).
   - Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
     (If you want to play from a memory card, insert the memory card.)
2. Touch Movie (🎞) tab.
   - The thumbnail index view appears.
   - To change the current thumbnail page, touch up (⌃) or down (⌄) tab.



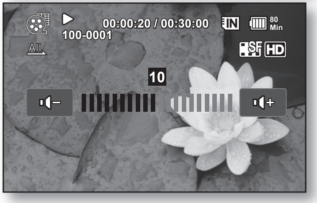
3. Touch a desired movie image.
   - The selected movie image is played according to Play Option setting. ➥page 64
   - Drag your finger from left to right to select the previous image on the LCD screen, reverse to select the next image.
   - To stop playback and return to thumbnail index view, touch Return (↩) tab.



- The play related tabs disappear on the screen a few seconds after the image plays back. They reappear when you touch any point on the screen.
- Depending on the amount of data to be played back, it may take some time for the playback images to appear.
- Movies edited on a PC may not be displayed on this HD camcorder.
- Movies recorded on another camcorder cannot be played on this HD camcorder.
- The play is paused when you touch the menu (☰) tab during playing.

Adjusting the volume

- Touch Volume (🔊) tab on the LCD screen.
  - You can control the volume by using decrease (🔈−) or increase (🔈+) tab on the LCD screen.
  - The level can be adjusted anywhere between 00 and 19.
  - You can do the same operation by using the remote control. (⌃/⌄)



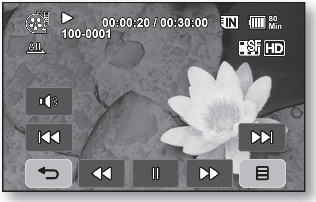
- You can hear the recorded sound from the built-in speaker.
- If you close the LCD screen while playing, you will not hear the sound from the speaker.

playback

Various playback operations

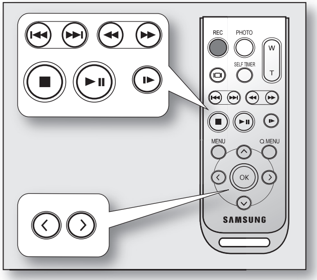
Playback / Pause / Stop

- Play and Pause functions alternate when you touch Playback (▶)/Pause (⏸) tab during playback. Touch Return (↩) tab to stop playback.
- You can do the same operation by using the remote control. (⏯/■)
- You can change playback direction by using Forward (〉) and Reverse (〈) on the remote control during playback.



Search playback

- During playback, each touch of Reverse search (⏪) / Forward search (⏩) tab increases the play speed.
  - RPS (Reverse Playback Search) rate: x2 → x4 → x8 → x16 → x32 → x2
  - FPS (Forward Playback Search) rate: x2 → x4 → x8 → x16 → x32 → x2
- You can perform the same operation by using the remote control. (⏪/⏩)
- To resume normal playback, touch the Playback (▶) tab or press Playback/ Pause button (⏯) on the remote control.



Skip playback

- Touch Reverse skip (⏮) / Forward skip (⏭) tab during playback.
  When playing the selected movie, if you touch Forward skip (⏭) tab, it moves to the next movie.
  If you touch Reverse skip (⏮), it moves to the beginning of the movie. If you touch Reverse skip (⏮) within 3 seconds from the start of a movie, it moves to the beginning of the previous movie.
- You can do the same operation by using the remote control. (⏮/⏭)

Slow playback

- Touching the Reverse slow (◁) / Forward slow (▷) tab while paused will play the movie forward or reverse at the 1/2x and 1/4x speed.
- You can play the movie at the 1/2x and 1/4x speed by using the Slow (▷) button and change playback direction by using Forward (〉) and Reverse (〈) button on the remote control.
- To resume normal playback, touch Playback (▶) tab or press the Playback/Pause (⏯) button on the remote control.

Frame by frame playback

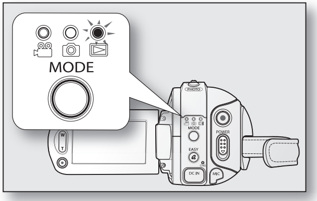
- During pause, press the Forward (〉)button on the remote control to begin the forward frame advance.
- To resume normal playback, press the Playback/Pause (⏯) button. (Or touch Playback (▶) tab on the screen.)

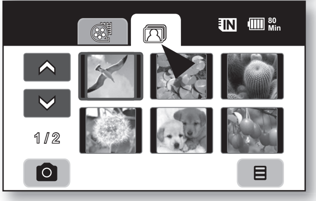
VIEWING PHOTO IMAGES

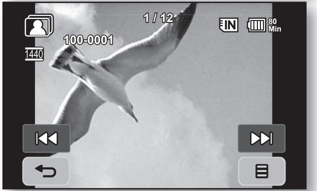
- This function works only in Play mode. ➥page 17
- You can play back and view photo images recorded on the storage media.

1. Slide the **POWER** switch downward to turn on the power and press the **MODE** button to set Play (▷).
   - Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
     (If you want to playback images on a memory card, insert the memory card.)
2. Touch Photo (🖼) tab.
   - The thumbnail index view appears.
   - To change the current thumbnail page, touch up (⌃) or down (⌄) tab.
3. Touch a desired photo image.
4. Touch previous image (⏮)/next image (⏭) tab, search for the desired photo image.
   - To view the previous image, touch previous image (⏮) tab.
   - To view the next image, touch next image (⏭) tab.
   - Drag your finger from left to right to select the previous image on the LCD screen, reverse to select the next image.
   - Place and hold your finger on the previous image (⏮)/next image (⏭) tab to search for an image quickly. Actually the image number is changed during search with images not changed.
5. To return to the thumbnail index view, touch Return (↩) tab.

- The play related tabs disappear on the screen a few seconds after play starts. They reappear when you touch any point on the screen.
- Loading time may vary depending on the image size.
- Photo(JPEG) files created in the other devices cannot be played back in this HD camcorder.





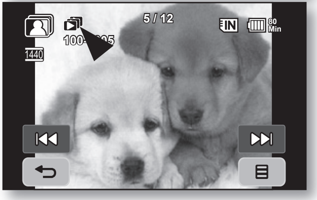


To view a slide show

Set the slide show function for continuous display.

1. Touch Menu (☰) tab in the thumbnail index view or single image display mode.
   - The menu will appear.
2. Touch "**Slide Show.**"
   - The (⧉) indicator is displayed. The slide show will start from the current image.
   - All images will be played back consecutively for 2~3 seconds each.
   - To stop the slide show, touch Return (↩) tab.

Slide show is available also in the quick menu. ➥page 51



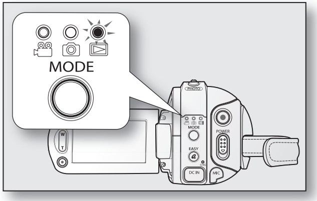
<Slide show>

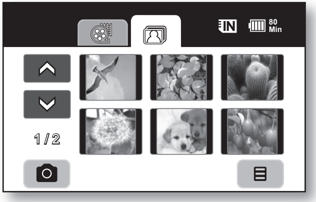
Zooming during playback

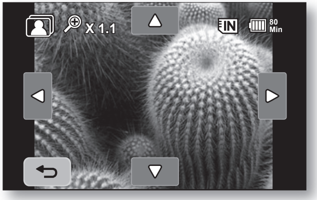
You can magnify the playback image from about 1.1 to 8 times the original size. Magnification can be adjusted with the **Zoom** lever or the **Zoom** button on LCD panel.

1. Touch the image to want to magnify.
2. Adjust the magnification with **W** (Wide angle)/**T** (Telephoto).
   - The screen is framed and the image is magnified starting from the center of image.
   - You can zoom in from X1.1 to X8.0 by sliding the **Zoom** lever.
   - While the playback zoom is in use, you cannot select any previous/next image.
3. Touch the up (△)/down (▽)/left (◁)/right (▷) tab to get the part you want in the center of the screen.
4. To cancel, touch Return (↩) tab.

- You cannot apply the playback zoom function to the images that are recorded on other devices.
- Playback zoom function is available only in the photo play mode.







connection

You can view the recorded movie and photo images on a large screen by connecting the HD camcorder to an HDTV or normal TV.

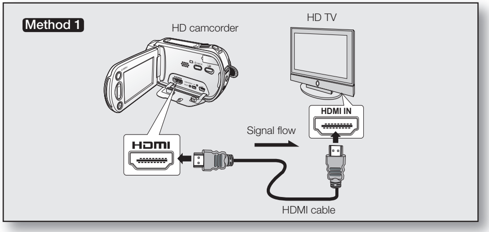
CONNECTING TO A TV

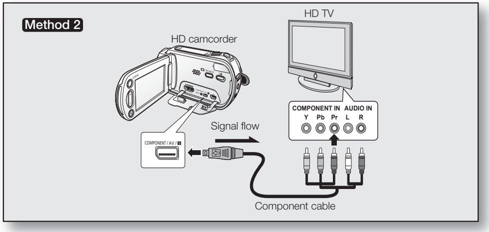
Before connecting to a TV

- According to TV and cables that are used, the connection method and resolution can differ.
- For more information about the connection, refer to the TV's user manual.
- Use the supplied AC power adaptor as the power source. ➥page 16

Connecting to a high definition TV

- To play back the HD-quality (1280x720) movie images, you need a high definition TV (HDTV).
- Method 1: Connect your HD camcorder to a TV with an HDMI cable. (HDMI cable is not supplied.)
- Method 2: Tune the output signal for TV using the "**Component Out**" function. ➥page 71

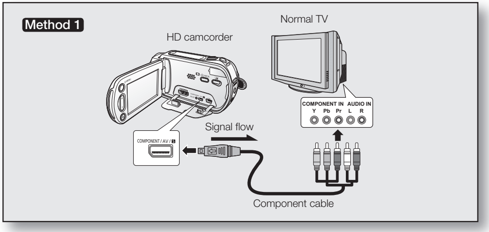


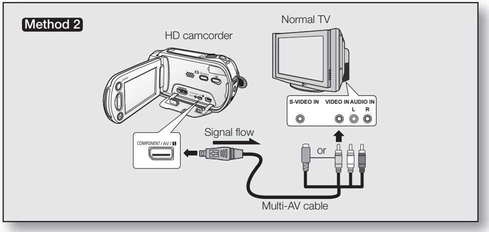


- **About the HDMI (High Definition Multimedia Interface)**
  HDMI jack is an interface to both video/audio signals. HDMI connection supplies high quality images and sound.
- The HDMI jack on your HD camcorder is for output use only.
- You can use the Anynet+ function by connecting the HD camcorder to a Samsung Anynet+ supported TV with the HDMI cable. Refer to the corresponding TV's user manual for more details.
- When the HD camcorder connected to the Anynet+ supported TV with an HDMI cable turns on, TV automatically turns on. (It is one of the Anynet+ functions.) If you do not want to use Anynet+ function, set **"Anynet+ (HDMI-CEC)"** to **"Off."** ➥page 70
- The Camcorder's output is fixed to 480p when a DVI cable is connected. To hear audio, the audio cable of Component or Multi-AV cable must be connected.
- When an HDMI cable is connected. it will override all other connections.
- HDMI feature can recognize the TV type automatically and adjust the video output resolution. Manual setting is not necessary.

Connecting to a normal TV (16:9/4:3)

- The connection is used when downconverting recorded HD images to SD for playback.
- When playing back HD-quality (1280x720) movie images on a SDTV, the images are down-converted to 720x480.
- The multi-AV cable does not support HD-quality images so it down-converts them to SD-quality images.
- Before connecting your HD camcorder to a TV, set the same aspect ratio on your HD camcorder as on your TV. ➥page 70
- Method 1: Tune the output signal for TV using the "**Component Out**" function. ➥page 71
- Method 2: When connecting with Multi -AV cable


Method 1
Normal TV
HD camcorder
COMPONENT IN AUDIO IN
Y Pb Pr L R
Signal flow
COMPONENT / AV / S
Component cable

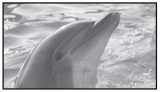
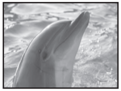
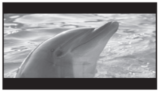
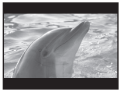
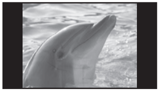
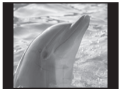
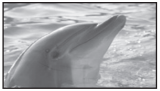
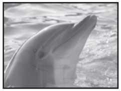

Method 2
Normal TV
HD camcorder
S-VIDEO IN VIDEO IN AUDIO IN
L R
Signal flow
COMPONENT / AV / S
or
Multi-AV cable

- If only a mono audio input is available on the TV set, use the audio cable with the white jack (Audio L).
- You may use an S-Video jack on the cable to obtain better quality images if you have an S-Video jack on your TV.
- Even if you use an S-Video jack, you need to connect an audio cable.
- When connecting HDMI, component and multi-AV cables at the same time, the video output priorities are as follows: HDMI output → Component output → S-Video output → Video output
- When connecting your HD camcorder to TV through HDMI, component, or multi-AV cable, check whether the connections are correctly made.
- When inserting/removing the HDMI, component, and multi-AV cables, do not apply excessive force.
- When connecting the multi-AV cable or component cable, make sure to match the color of the cable plugs to the TV jacks.
- It is recommended to use the AC power adaptor as the power source.
- When the HD camcorder is connected to a TV, you cannot control the volume of the TV from the camcorder.

Viewing on TV screen

1. Slide the **POWER** switch downward to turn on the power and press the **MODE** button to set Play (▷). ↪page 17
2. Turn on the TV and set the input source on the TV to the input connection the HD camcorder is connected to.
   - Refer to the TV's instruction manual to see how to switch the TV input.
3. Perform playback. ↪page 39, 41
   - The image on the HD camcorder appears on the TV screen.
   - You can also monitor the image on the LCD screen of the HD camcorder.
   - You can also perform play, recording or editing in play mode while viewing on a TV screen.

Image display depending on TV screen ratio

Recording ratio	TV Type setting	Wide (16:9) TV	4:3 TV
Images recorded in the 16:9 ratio • Movie images • Photo capture images	16:9		
	4:3		
Photo images recorded in the 4:3 ratio	16:9		
	4:3		

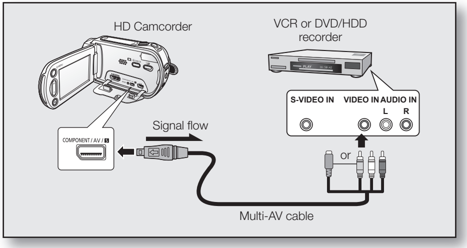
- Refer to page 70 for "**TV Type**" setting.

Continued ↪

- Adjust the sound volume on the TV.
- The remote control is useful when operating the HD camcorder while viewing an image on a TV screen.
- Information that the HD camcorder is recording will appear on the TV screen: You can switch between the on-screen information display modes. Refer to “Switching the information display mode” and press the **Display (▭)/*i*CHECK** button to switch the display status. ➥page 22

DUBBING IMAGES ON A VCR OR DVD/HDD RECORDER

- You can dub images played back on this HD camcorder, onto a VCR or DVD/HDD recorder.
- Refer to “editing movie images” to create a playlist by selecting desired scenes from those recorded on this HD camcorder. ➥page 76
- **Use the provided multi-av cable to connect the HD camcorder to the other AV device.**
- If the connected AV device has an S-Video output jack, you can connect the S-Video jack of Multi-AV cable.



1. Press the **MODE** button to set Play (▷).
2. Choose the desired image to be dubbed, then press the record button on the connected device.
    - The HD camcorder will start playback and the recording device will dub it.

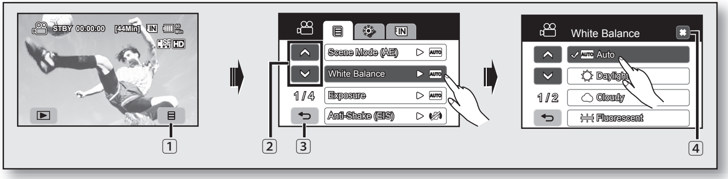
- Using S-Video will deliver clear images.
- Be sure to use the AC power adaptor to power the HD camcorder to prevent battery power from shutting off during recording on another video device.

using the menu items

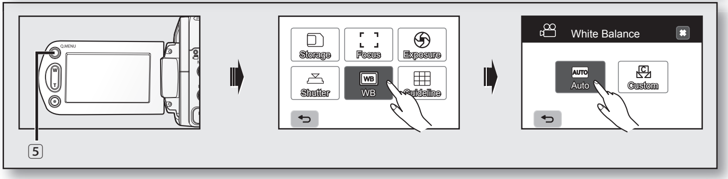
You can operate the HD camcorder more usefully by setting menus related to recording, playback and setting.

HANDLING MENUS AND QUICK MENUS

- You can change the menu settings to customize your HD camcorder. Access the desired menu screen by following the steps below and change the various settings.
- Using the touch panel, you can easily make your selection and navigate the menu.



STBY 00:00:00
[44Min]
Scene Mode (AE)
White Balance
1/4
Exposure
Anti-Shake (EIS)
White Balance
Auto
Daylight
1/2
Cloudy
Fluorescent
1
2
3
4



Q.MENU
Storage
Focus
Exposure
Shutter
WB
Guideline
White Balance
Auto
Custom
5

1 Menu (▤) tab: Use it to enter the menu.

2 Up (⌃)/down (⌄) tab: Use it to change the previous or next page.

3 Return (↩) tab: Use it to move to the previous menu or exit from the menu.

4 Exit (✖) tab: Use it to exit from the menu.

5 **Q.MENU** button: Use it to enter the quick menu.
Quick menu provides easier access to frequently used menus without using the Menu (▤) tab.

- Menu and quick menu cannot be used in EASY Q mode.
- Accessible items in menu and quick menu vary depending on the operation mode.
  For the accessible items, see pages 49-51.

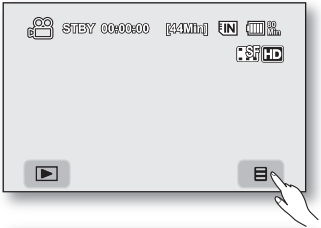
using the menu items

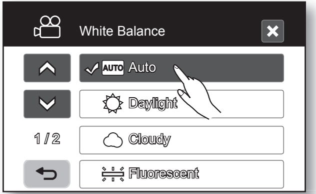
✪ **Follow the instruction below to use each of the menu items listed after this page.**

For example: setting the White Balance in movie mode

When using Menu (☰) tab;

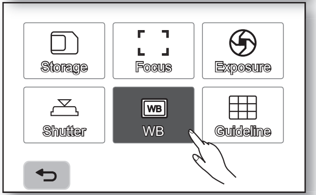
1. Touch Menu (☰) tab.
2. Touch “**White Balance.**”
   - If the item is not on the screen, touch up (⌃) or down (⌄) tab to scroll up or down to the next group of options.
3. Touch the desired option.
   - If the item is not on the screen, touch up (⌃) or down (⌄) tab to scroll up or down to the next group of options.
4. To exit, touch Exit (✖) tab or Return (↩) tab until the menu disappears.

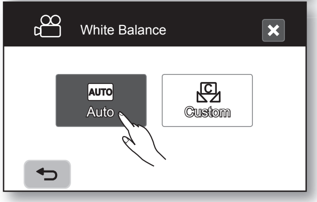

STBY 00:00:00
[44Min]
IN
80 Min
SF
HD


White Balance
✓ AUTO Auto
Daylight
1 / 2
Cloudy
Fluorescent

When using the Q.MENU button;

1. Press the **Q.MENU** button to enter the quick menu.
2. Touch “**WB.**”
3. Touch the desired option.
4. To exit, touch Exit (✖) tab or Return (↩) tab until the menu disappears.


Storage
Focus
Exposure
Shutter
WB
Guideline


White Balance
AUTO
Auto
C
Custom

There are some functions you cannot activate simultaneously, when using Menu (☰) tab or **Q.MENU** button. You cannot select the menu items grayed out on the screen. Refer to the troubleshooting for examples of unworkable combinations of functions and menu items. ➥page 109

MENU ITEMS

- Accessible items in menu vary depending on the operation mode.
- For operation details, see the corresponding page.

● : Possible
X : Not possible

Recording menu items (▤)

Operating mode	Movie (🎥)	Photo (📷)	Default value	Page
Scene Mode (AE)	●	●	Auto	52
Resolution	X	●	1440x1080	63
Cont. Shot	X	●	Off	63
White Balance	●	●	Auto	53
Exposure	●	●	Auto	54
Anti-Shake (EIS)	●	X	Off	55
Digital Effect	●	X	Off	56
Focus	●	●	Auto	56
Shutter	●	X	Auto	58
Tele Macro	●	●	Off	59
Quality	●	X	(HD) Super Fine	60
Wind Cut	●	X	Off	60
Back Light	●	●	Off	61
Fader	●	X	Off	61
Digital Zoom	●	X	Off	62

Playback menu items (▤)

Operating mode		Movie (🎥)	Photo (📷)	Default value	Page
Play Option		●	X	Play All	64
Slide Show		X	●	-	41
Delete		●	●	-	80
Protect		●	●	-	79
Copy*		●	●	-	81
Move*		●	●	-	82
Edit	Partial Delete	●	X	-	72
	Divide (thumbnail index view only)	●	X	-	73
	Combine (thumbnail index view only)	●	X	-	75
Cont. Capture		●	X	Off	64
Print Mark (DPOF) (Memory card only)		X	●	-	83
File Info (single display mode only)		●	●	-	65

using the menu items

Setting menu items (⚙)

Operating mode	Default value	Page
Date/Time Set	-	66
Date/Time	Off	66
File No.	Series	66
LCD Control	Bright 18 / Contrast 18	67
Storage Info	-	67
Format	-	68
Beep Sound	On	68
Shutter Sound	On	68
Auto Power Off	5 min	69
LED Light	Off	69
Rec Lamp	On	69
Remote	On	70
USB Connect	Mass Storage	70
TV Type	16:9	70
Component Out	Auto	71
Default Set	-	71
Language	-	71
Demo	Off	71
Anynet+ (HDMI-CEC)	On	70

- Some items will not appear depending on the storage media type.
- There are some functions you cannot activate simultaneously, when using Menu (▤) tab or **Q.MENU** button. You cannot select the menu items that are grayed out on the screen. Refer to the troubleshooting for examples of unworkable combinations of functions and menu items. ➥page 109
- *: only for SC-HMX10A/HMX10C/HMX10CN/HMX10ED.

QUICK MENU ITEMS

- Accessible items in quick menu vary depending on the operation mode.
- For operation details, see the corresponding page.

● : Possible
X : Not possible

Recording menu items

Operating mode	Movie (🎥)	Photo (📷)	Default value	Page
Storage*	●	●	Memory	26
Focus	●	●	Auto	56
Exposure	●	●	Auto	54
Shutter	●	X	Auto	58
WB	●	●	Auto	53
Guideline	●	●	Off	64

Playback menu items

Operating mode	Movie (🎥)	Photo (📷)	Default value	Page
Storage*	●	●	Memory	26
Copy*	●	●	-	81
Delete	●	●	-	80
Edit	●	X	-	72-75
Playlist	●	X	-	77-78
Highlight	●	X	-	65
Slide	X	●	-	41

- Some items will not appear depending on the storage media type.
- There are some functions you cannot activate simultaneously, when using Menu (▤) tab or **Q.MENU** button. You cannot select the menu items that are grayed out on the screen. Refer to the troubleshooting for examples of unworkable combinations of functions and menu items. ➥page 109
- *: only for SC-HMX10A/HMX10C/HMX10CN/HMX10ED.

RECORDING MENU ITEMS

You can setup the menu items for movie and photo images recording.

Scene Mode (AE)

This HD camcorder automatically sets the shutter speed and aperture according to the subject brightness for optimum recording: You can also specify one of five modes depending on subject conditions, recording environment or purpose of filming.

Settings	Contents	On-screen display
Auto	- Auto balance between the subject and the background. - To be used in normal conditions. - The shutter speed is automatically adjusted from 1/60 to 1/250 per second, depending on the scene.	**None**
Sports	- Reduces blurring when recording rapidly moving subjects such as in golf or tennis. If the Sports mode is used under a fluorescent light, the image may flicker. In this case, use the Auto mode for recording.	🏃
Portrait	- Creates a shallow depth of field so that the person or subject appears against a softened background. - The portrait mode is most effective when used outdoors. - The shutter speed is automatically adjusted from 1/60 to 1/1000 per second.	👥
Spotlight	- Prevents overexposure of subject's face, etc. when strong light strikes the subject, as in a wedding or on stage.	👤
Beach/ Snow	- Prevents under exposure of subject's face, etc. in a place where light reflection is intense, such as at the beach in midsummer or on a ski slope.	⛷

- You can check the selected Scene mode on the on-screen information display. However, nothing will appear in Auto mode.
- This function will be set to "**Auto**" in the EASY Q mode.

White Balance

This HD camcorder automatically adjusts the color of subject.
Change the white balance setting depending on the recording conditions.

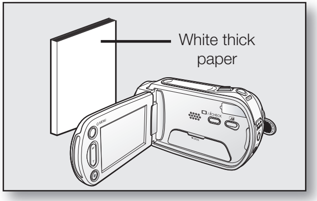
Settings	Contents	On-screen display
Auto	This option is generally used to control the white balance automatically.	**None**
Daylight	This controls the white balance according to the outdoor ambience, especially for close up and when the subject is of one dominant color.	☼
Cloudy	This option is used when you make a recording in cloudy weather.	☁
Fluorescent	This option is used when you make a recording under white fluorescent lights.	☰
Tungsten	This option is used when the surroundings are less than 3200K of tungsten lights.	💡
Custom WB	You can manually adjust white balance to match the light source or situation	C

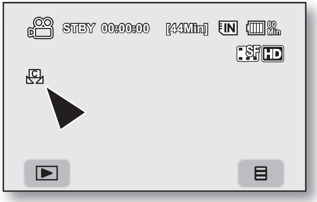
Setting white balance manually;

1. Touch “**Custom WB.**”
- The “ C **Set White Balance**” indicator is displayed.

2. Frame a white object such as a piece of white paper so that it fills the screen.
- Use an object that is not transparent.
- If the object that fills the screen is not focused, correct the focus using “**Focus : Manual**” ➥page 56

3. Touch **OK** (OK) tab.
- The white balance setting will be applied and (C) indicator is displayed.





- A subject can be shot under various types of lighting conditions indoors (natural, fluorescent, candlelight, etc.). Because the color temperature is different depending on the light source, the subject tint will differ depending on the white balance settings. Use this function for a more natural result.
- It is recommended that you specify "**Digital Zoom: Off**" (➥page 62) before setting white balance.
- Do not use a colored object when setting white balance: The appropriate tint cannot be set.
- This function will be set to "**Auto**" in the EASY Q mode.
- Reset the white balance if lighting conditions change.
- During normal outdoor recording, setting to auto may provide better results.

Exposure

The HD camcorder usually adjusts the exposure automatically. You can also manually adjust the exposure depending on the recording conditions.

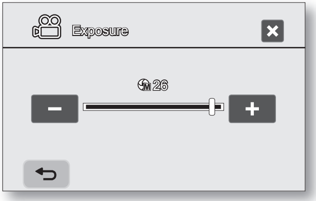
Settings	Contents	On-screen display
Auto	This option automatically adjusts image brightness according to the environmental light conditions.	**None**
Manual	You can adjust the brightness of an image manually. Adjust the brightness when the subject is too bright or too dark.	M

Setting the exposure manually:

When manually setting the exposure, the default setting appears as the value is automatically adjusted according to the environmental light conditions.

Touch decrease (−) or increase (+) tab to adjust the exposure while viewing the image on the LCD screen.

- Exposure value can be set between "**0**" and "**29.**"



Manual exposure is recommended in situations listed below:

- When shooting using reverse lighting or when the background is too bright.
- When shooting on a reflective natural background such as at the beach or when skiing.
- When the background is overly dark or the subject is bright.

- If you manually change the exposure value when "**Scene Mode (AE)**" function is selected, manual changes are applied first.
- This function will be set to "**Auto**" in the EASY Q mode.

Anti-Shake (EIS: Electronic Image Stabilizer)

When you use zoom to record a magnified subject image, it will correct fuzziness in the recorded image.

Settings	Contents	On-screen display
Off	Disables the function.	**None**
On	Compensates for unstable images caused by camcorder-shake, particularly at high magnification.	✋

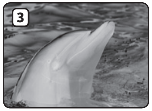
- EASY Q mode automatically sets the "**Anti-Shake**" to "**On.**"
- When "**Anti-Shake: On**" is set, there will be a slight difference between the actual movement and the movement on screen.
- Gross camcorder shake may not be entirely corrected even if "**Anti-Shake: On**" is set. Firmly hold the HD camcorder with both hands.
- It is recommended that you specify "**Anti-Shake: Off**" when using the HD camcorder on a desk or tripod (not supplied).
- When you record images with high magnification and the "**Anti-Shake**" is set to "**On**" in dark locations, after-images may stand out. In this case, we recommend using a tripod (not supplied) and turning the "**Anti-Shake**" to "**Off.**"
- The Anti-Shake function will work only in Movie (🎥) mode.

Digital Effect

The digital effect enables you to give a creative look to your recording. Select the appropriate digital effect for the type of picture that you wish to record and the effect you wish to create.

There are 4 different digital effect options.

Settings	Contents	On-screen display
Off	Disables the function.	**None**
① **Black & White**	This mode changes the images to black and white.	BW
② **Sepia**	This mode gives the images a reddish brown pigment.	S
③ **Negative**	This mode reverses the colors, creating a negative image.	N
④ **Art**	This mode gives the images a coarse effect.	🎨



This function will be set to "**Off**" in the EASY Q mode.

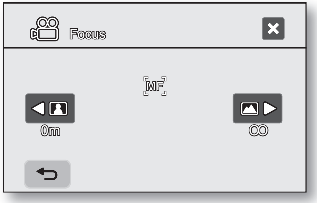
Focus

The HD camcorder usually focuses on a subject automatically (auto focus). When the HD camcorder is turned on, auto-focus will always be set.
You can also manually focus a subject depending on the recording conditions.

Settings	Contents	On-screen display
Auto	In most situations, it is better to use the automatic focus feature, as it enables you to concentrate on the creative side of your recording.	**None**
Manual	Manual focusing may be necessary under certain conditions that make automatic focusing difficult or unreliable.	MF

Focusing manually during recording

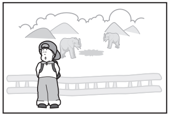
This HD camcorder automatically focuses a subject from close-up to infinity. However, the correct focus may not be obtained depending on the recording condition. In this case, use the manual focus mode.



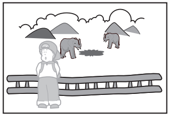
1. Touch "**Focus**" → "**Manual.**"
   - The manual focus adjustment indicator appears.
2. Touch nearer subject (◁👤) or further subject (⛰▷) tab to adjust the focus, while viewing the subject on the LCD screen.

   Focusing on a further subject
   To focus on a further subject, touch further subject (⛰▷) tab.

   Focusing in a nearer subject
   To focus on a nearer subject, touch nearer subject (◁👤) tab.



<Nearer subject>



<Further subject>

In the following situations, you may obtain better results by adjusting the focus manually.

- A picture containing several objects, some close to the HD camcorder, others further away.
- A person enveloped in fog or surrounded by snow.
- Very shiny or glossy surfaces like a car.
- People or objects moving constantly or quickly like an athlete or a crowd.

- "**Focus**" function will alternate between manual focus and auto focus. With auto focus, no indication will appear on the screen.
- Be sure to zoom in on your subject before manually focusing on it. If you bring the subject into focus at the "**W**" control side, focus will be faulty when you turn the zoom lever to the "**T**" control side to zoom in on the subject.
- If you are inexperienced in the use of HD camcorders, we recommend that you use auto focus.
- This function will be set to "**Auto**" in the EASY Q mode.
- The nearer or further icon (👤/⛰) appears in the center when focus adjustment reaches the end.
- The adjusted value is applied right after touching (◁👤 or ⛰▷) tab.

Shutter

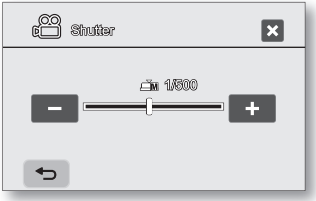
The HD camcorder automatically sets the shutter speed depending on the subject brightness. You can also manually adjust the shutter speed according to the scene conditions.

Settings	Contents	On-screen display
Auto	The HD camcorder automatically sets the appropriate aperture value.	**None**
Manual	Shutter speed can be set to 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, or 1/10000.	**S.1/XXX**

Setting the shutter speed manually

You can set the shutter speed manually. A fast shutter speed can freeze the motion of a fast moving subject and a slow shutter speed can blur the subject to give the impression of motion.

- Fast shutter speed allows a fast-moving subject to be captured one frame at a time vividly.
  Use these settings when an automatic adjustment does not work well with "**Sports**" mode in "**Scene Mode (AE).**" ➥page 52



Recommended shutter speed when recording

Shutter speed	conditions
1/60	The shutter speed is fixed at 1/60 second. Black bands that usually appear when shooting a TV screen become narrower.
1/100	The shutter speed is fixed at 1/100 second. Indoor sports such as basketball. The flickering that occurs when shooting under a florescent light or mercury-vapor lamp is reduced.
1/250, 1/500, 1/1000	Moving cars, trains or other rapidly moving vehicles such as roller coasters
1/2000, 1/4000, 1/10000	Outdoor sports such as golf and tennis.

- If you manually change the shutter speed value when “**Scene Mode (AE)**” function is selected, manual changes are applied first.
- The image may not seem smooth when a high shutter speed is set.
- This function will be set to “**Auto**” in the EASY Q mode.
- When recording with a shutter speed of 1/1000 or higher, make sure the sun is not directly shining into the lens.
- The shutter speed will work only in Movie (🎥) mode.

Tele Macro

- This function is used to record a distant subject that is approaching.
- The effective focal distance in the Tele macro mode is between 50 Cm (19.7 inches) and 100 Cm (39.4 inches).

Settings	Contents	On-screen display
Off	Disables the function.	**None**
On	Tele macro is executed.	🌷

- When recording in Tele macro mode, the focus speed may be lowered.
- When you operate the zoom function in the Tele macro mode, the recording subject may get out of focus.
- Use a tripod (not supplied) to prevent hand shake in the Tele macro mode.
- Avoid shadows when recording in the Tele macro mode.
- As the distance to the subject decreases, focusing area narrows.
- When you can not get proper focus, move the **Zoom** lever to adjust focus.
- This function will be set to “**Off**” in the EASY Q mode.

Quality

- You can select the quality of a movie to be recorded.
- Regarding detailed image capacity, see page 28.

Settings	Contents	On-screen display
[HD] Super Fine	Records in the HD format the highest quality mode. (Approx. 12Mbps)	SF HD
[HD] Fine	Records in the HD format high quality mode. (Approx. 9Mbps)	F HD
[HD] Normal	Records in the HD format normal quality mode. (Approx. 6Mbps)	N HD
[SD] Standard	Records in the SD format standard quality mode. (Approx. 4Mbps)	S SD
[SD] Economy	Records in the SD format economy quality mode. (Approx. 2Mbps)	E SD

- The movie can be recorded in 1280x720 (HD) or 720x480 (SD) depending on the quality.
- Recorded files are encoded with Variable Bit Rate (VBR).
  VBR is an encoding system that automatically adjusts the bit rate according to the recording image.
- The recording times shown above are approximate and depend on the recording environment (i.e. lighting conditions).

Wind Cut

You can reduce wind noise when recording sound from the built-in microphone.
If "**Wind Cut: On**" is set, the low-frequency components in the sound picked up by the microphone will be cut off during recording: This makes it easier to hear voice and sound during playback.

- Use the Wind Cut when recording in windy places such as a beach.

Settings	Contents	On-screen display
Off	Disables the function.	**None**
On	Minimizes wind noise or other noise while recording.	⚑

- When the "**Wind Cut**" is "**On,**" some low frequency sound is eliminated along with the sound of the wind.
- Make sure the "**Wind Cut**" is set to "**Off**" when you want the microphone to be sensitive as possible.
- The Wind Cut function will work only in Movie(🎥) mode.
- The Wind Cut function works only with the built-in microphone.

Back Light

When subject is lit from behind, this function will compensate for lighting so that the subject is not too dark.

Settings	Contents	On-screen display
Off	Disables the function.	**None**
On	- Backlight compensation is executed. - Backlight compensation brightens the subject quickly.	☼

Back lighting influences recording when the subject is darker than the background:

- The subject is in front of a window.
- The person to be recorded is wearing white or shiny clothes and is placed against a bright background; the person's face is too dark to distinguish his/her features.
- The subject is outdoors and the background is overcast.
- The light sources are too bright.
- The subject is against a snowy background.

This function will be set to "**Off**" in the EASY Q mode.

<Back light off>

<Back light on>

Fader

You can give your recording a professional look by using special effects such as fade in at the beginning of a sequence or fade out at the end of a sequence.

Settings	Contents	On-screen display
Off	Disables the function.	**None**
On	Fader is executed.	▥

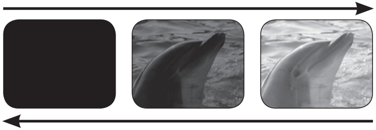
Fade in

Press the **Recording start/stop** button when **“Fader”** is set to **“On.”** Recording starts with a dark screen and then the image and sound are faded in. (fade in).

Fade out

When you want to stop recording with fade out, set **“Fader”** to **“On”** again during recording. Press the **Recording start/stop** button.
Recording stops as the image and sound are faded out. (fade out).

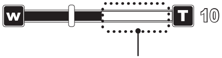
Fade in (approx. 3 seconds)



Fade out (approx. 3 seconds)

Digital Zoom

You can select the maximum zoom level in case you want to zoom to a level greater than 10X (the default setting) during recording. Note that the image quality decrease when you use the digital zoom.



This right side of the bar shows the digital zooming factor. The zooming zone appears when you select the zooming level.

Settings	Contents	On-screen display
Off	Up to 10X zoom is performed optically.	**None**
On	Up to 10X zoom is performed optically, and after that, up to 2X zoom is performed digitally. (Zooming more than 10x is achieved digitally, up to 20x when combined with optical zoom.)	**None**

- The image quality may deteriorate depending on how much you zoom in on the subject.
- Maximum zooming may result in lower image quality.
- This function will be set to “**Off**” in the EASY Q mode.
- Digital Zoom function is not available when **“Anti-Shake (EIS)”** is **“On.”** But, when setting **“Anti-Shake (EIS)”** to **“On”** with Digital Zoom on, Digital Zoom is released automatically.
- Digital Zoom is released automatically when Component or HDMI cable is connected.

Resolution

You can select the resolution of photo images to record.

Settings	Contents	On-screen display
2048x1536	Select to record at high resolution.	2048
1440x1080	Select to record at medium resolution.	1440
640x480	Select to record at low resolution.	640

- See page 28 for information on the camcorder's image storage capacity.
- For photo development, the higher the resolution, the finer the image quality.
- The number of recordable images varies depending on the recording environment.
- Photo images that are recorded on your HD camcorder may not playback properly on other digital devices that do not support this photo size.
- High resolution images use more memory than lower resolution images. Therefore the higher the resolution selected, the less memory will be available to take photos.

Cont. Shot

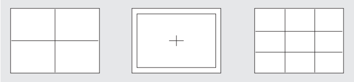
- Continuous shot allows the user to take consecutive images of a moving object.
- Records images continuously up to the storage capacity.

Settings	Contents	On-screen display
Off	Disable the function.	**None**
On	Continuous shot is executed.	⧉

- When an error (such as memory full) occurs during continuous recording, recording is ended and an error message is displayed.
- When pressing **PHOTO** button, it records continuously to a maximum number (15) of photo images at about 0.3 seconds intervals.

Guideline

- Guideline displays a certain pattern on the LCD screen so that you can easily set the image composition when recording movie or photo images.
- The HD camcorder provides 3 types of guidelines.



- Positioning the subject at the cross point of the guideline makes a balanced composition.
- This function works only in the quick menu.
- Guideline cannot be recorded on the images being recorded.

PLAYBACK MENU ITEMS

You can setup these menu items for playing movies.

Play Option

You can setup play options for movie image playback.

Settings	Contents	On-screen display
Play All	Plays movie images continuously starting from the selected one to the last and returns to the thumbnail index view.	All
Play One	Plays the selected movie image only and returns to the thumbnail index view.	1
Repeat All	Plays all the movie images repeatedly until touching Return (↩) tab.	🔁
Repeat One	Plays repeatedly the selected movie image only until touching Return (↩) tab.	🔂

Cont. Capture

You can consecutively capture still images while playing a movie image by pressing the **PHOTO** button.

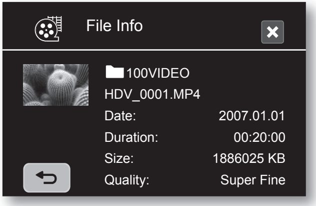
Settings	Contents	On-screen display
Off	Captures only one still image.	**None**
60 Copies / 1 sec	A maximum of 60 still images per second are captured while the **PHOTO** button is pressed.	1/60
5 Copies / 1 sec	5 still images per second are captured while the **PHOTO** button is pressed.	1/5
2 Copies / 1 sec	2 still images per second are captured while the **PHOTO** button is pressed.	1/2

- The images are captured continuously while the **PHOTO** button is pressed.
  - The number of the captured images varies depending on how long the **PHOTO** button is pressed.
  - The interval that the images are captured continuously varies according to the continuous capture option.
- When an error (such as memory full) occurs during continuous capturing, capturing is ended and an error message is displayed.
- The captured images during playback are stored in the storage media in use.
- 1 second mentioned on the previous page is not the required time to capture the photo but the amount of 1 second (60 frames) that is divided into "copies" for capturing.

File Info

It shows you the image information. You can view the file name, created date and size, etc.

This function is available only in the single image display mode.



File Info

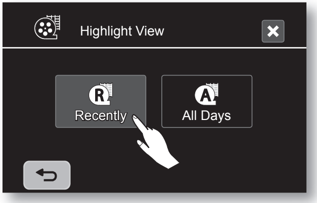
100VIDEO
HDV_0001.MP4
Date: 2007.01.01
Duration: 00:20:00
Size: 1886025 KB
Quality: Super Fine

Highlight

Shows a section of recorded movie images at random according to the total play time and number of files.

Settings	Contents	On-screen display
Recently	Shows a section of a movie image(s) that was created within 24 hours of the most recent one.	R
All Days	Shows a section of all movie images.	A

This function can be set only in the quick menu.



SETTING MENU ITEMS

You can setup the date/time, OSD language, video output, and display settings of the HD camcorder.

Date/Time Set

Set the current date and time so they can be recorded correctly. ➥page 25

Date/Time

You can set to set the date and time to display on the LCD screen.

- Before you use the "**Date/Time**" function, you must set the date and time. ➥page 25

Settings	Contents	On-screen display
Off	Current date and time information is not displayed.	**None**
Date	Displays the current date.	**JAN/01/2007**
Time	Displays the current time.	**12:00 AM**
Date & Time	Displays the current date and time.	**JAN/01/2007 12:00AM**

- **The date/time will read "JAN/01/2007 12:00 AM" in the following conditions.**
  - If the a movie or photo recording was made before setting the date/time in the HD camcorder.
  - When the built-in rechargeable battery becomes weak or dead.
- The time and date which movie or photo images are recorded are displayed in play mode.

File No.

File numbers are assigned to images in the order they were recorded.

Settings	Contents	On-screen display
Series	Assigns file numbers in sequence even if the memory card is replaced with another one or after formatting or deleting all files. The file number is reset when a new folder is created.	**None**
Reset	Resets the file number to 0001 even after formatting or deleting all files or inserting a new memory card. Use "**Reset**" when the folder and files cannot be created anymore because the camcorder has reached its limit.	**None**

LCD Control

- Your HD camcorder is equipped with a 2.7 inch wide color Liquid Crystal Display (LCD) screen, which enables you to view what you are recording or playing back directly.
- Depending on the conditions under which you are using the HD camcorder (indoors or outdoors for example), you can adjust LCD brightness and contrast.

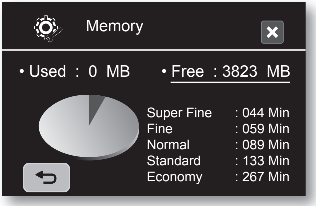
Settings	Contents	On-screen display
Bright	Adjusts the brightness of the LCD screen.	**None**
Contrast	Adjusts the contrast of the LCD screen.	**None**

- Touch decrease (◁) or increase (▷) tab to increase or decrease the value of a desired item.

- You can set values for LCD brightness and contrast between 0 and 35.
- Adjusting the LCD screen does not affect the brightness and contrast of the image to be recorded.

Storage Info

This shows you the storage information (the storage media, used space and available space, recordable time according to the quality). So you can find out how long you will be able to record on the storage media.
Make sure to set the appropriate storage media.



Memory

• Used : 0 MB
• Free : 3823 MB

Super Fine : 044 Min
Fine : 059 Min
Normal : 089 Min
Standard : 133 Min
Economy : 267 Min

Settings	Contents
Memory	You can view the used space, available space, and the recordable time on the built-in memory.
Card	You can view the used space, available space, and the recordable time on the memory card.

The memory card's information appears by touching **"Storage Info."** (SC-HMX10/HMX10N only)

Format

You can use the “**Format**” function to completely delete all files and options on the storage media, including protected files.

Settings	Contents	On-screen display
Memory	You can format the built-in memory.	**None**
Card	You can format the memory card.	**None**

- If you execute the format function, all files will be deleted completely and the erased files cannot be recovered.
- Formatting the storage media using a different device will cause “**Read errors.**”
- A memory card with the protection tab set to lock will not be formatted. ➥page 29
- Format does not perform if the battery is low.
- The memory card format is executed by touching **“Format.”** (SC-HMX10/HMX10N only)

Beep Sound

You can turn the beep sound on or off.

Settings	Contents	On-screen display
Off	Cancels the beep sound.	**None**
On	When on, a beep will sound every time a button is pressed.	**None**

The beep sound is off when recording movie.

Shutter Sound

You can turn the shutter sound on or off.

Settings	Contents	On-screen display
Off	Cancels the shutter sound.	**None**
On	When on, the shutter will sound with each press of the **PHOTO** button.	**None**

Auto Power Off

You can set the HD camcorder to automatically turn off when there is no operation for 5 minutes.

Settings	Contents	On-screen display
Off	The HD camcorder does not turn off automatically.	**None**
5 min	For power saving purposes, the HD camcorder will automatically turn off if there is no operation for 5 minutes only in standby mode.	**None**

- Auto Power Off function does not work when a USB cable is connected.
- When the Demo function is set to on, the Demo function works with priority rather than Auto Power Off function. If you want to turn off the HD camcorder automatically after 5 minutes, release the Demo function. ➥page 71

LED Light

The LED light enables you to record a subject in dark places.

Settings	Contents	On-screen display
Off	Disable the function.	**None**
On	Record a clear image in dark locations without sacrificing color.	▣

WARNING

- The LED light can become extremely hot.
- Do not touch it while in operation or soon after turning it off, otherwise serious injury may result.
- Do not place the HD camcorder into the carrying case immediately after using the LED light, since it remains extremely hot for some time.
- Do not use near flammable or explosive materials.

- The range of the LED light is limited. (Up to 6.6ft (2m))
- The LED light function will work only in Movie(🎥) mode.

Rec Lamp

You can turn the recording indicator on the front of the camcorder on or off during movie or photo recording.

Settings	Contents	On-screen display
Off	Recording indicator is off.	**None**
On	Recording indicator is on during recording.	**None**

Remote

This function allows you to enable or disable the remote control for use with the HD camcorder.

Settings	Contents	On-screen display
Off	Disable the function. The (🚫) indicator appears when you use the remote control.	**None**
On	You can control the HD camcorder with the remote control.	**None**

USB Connect

Using the USB cable, you can connect your HD camcorder to a PC to copy your movie images and photo images from the storage media, or to a printer to print your photo images.

Settings	Contents	On-screen display
Mass Storage	Connect to a PC.	**None**
PictBridge	Connect to a PicBridge printer.	**None**

TV Type

You can select the aspect ratio during playback on TV.

Settings	Contents	On-screen display
16:9	Select 16:9 to use the wide screen TV mode.	16:9
4:3	Select to use the standard 4:3 display aspect ratio.	~~16:9~~

- This function is available when the HD camcorder is connected to a TV.
- TV type is set to on automatically when an HDMI cable is connected, so this function is deactivated.

Anynet+ (HDMI-CEC)

Anynet+ is an AV network system that enables you to control all connected Samsung AV devices with an Anynet+ supported Samsung TV's remote control. You can use the Anynet+ function by connecting the HD camcorder to an Anynet+ supported TV with an HDMI cable and by setting "**Anynet+ (HDMI-CEC)**" to "**On**."
For more details, refer to your Samsung TV's user manual.

Component Out

You can set the component video output to match the TV you have connected.

Settings	Contents	On-screen display
Auto	The video signals are output in the same format as the recorded file. Use this setting only when connecting to an HDTV. When “Auto” is selected, an indicator does not appear on the screen.	**None**
SD 480P	The recorded file is output in the 480P format. Select it when connecting to an SD quality TV that supports progressive scan.	480P
SD 480i	The recorded file is output in the 720x480i format. Select when connecting to an SD quality TV that does not support progressive scan.	480i

Default Set

You can restore menu settings to default (initial settings at the factory) ➥pages 49-51

Initializing the HD camcorder settings to factory defaults does not affect recorded images.

Language

You can select a desired language to display the menu and messages.

“Language” options may be changed without prior notice. ➥page 24

Demo

Demonstration automatically shows you the major functions that are included with your HD camcorder so that you may use them more easily.

Settings	Contents	On-screen display
Off	Disables the function	**None**
On	Activates Demonstration mode and shows various features.	**None**

- The Demo function will automatically come on after 5 minutes has passed in STBY mode when recording a movie.
- You can release the Demo function as follows.
  - Touching any point on LCD screen / changing mode / pressing the button (**Recording start/stop**, **Q.MENU**, **Display (□)/*i*CHECK**, **EASY Q**, or **LCD enhancer (▣)**)
- Demo function does not work when the Multi-AV or component cable (only when **"Component Out"** is set to 480p or 480i) is connected to TV. Also Demo stops and it returns to STBY mode once above cables are connected.

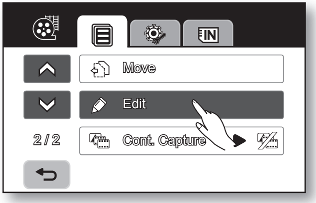
editing movie images

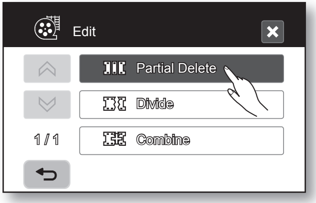
You can edit recorded movie images in various ways.
To use Partial Delete, Divide, or Combine 10MB of extra space is needed on the storage media.
Movie image editing cannot be performed when the battery is low.

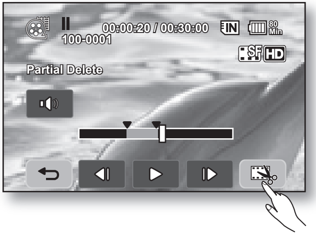
DELETING A SECTION OF A MOVIE IMAGE

- This function works only in Play mode. ➥page 17
- A movie image can be partially deleted.

1. Touch Menu (≡) tab → "**Edit**" → "**Partial Delete.**"
   - If the item is not on the screen, touch up (⌃)/down (⌄) tab to scroll up or down to the next group of options.
2. Touch a desired movie image.
   - The selected movie image will be paused.
3. Search the start point of deletion by touching playback related (▷, ⏸, ⏪, ⏩, ◁, or ▷) tab.
4. Touch " ✓ " tab at the start point.
   - The start point of deletion will be marked with "▾."
5. Touch playback related (▷, ⏸, ⏪, ⏩, ◁, or ▷) tab to search the end point of deletion.
6. Touch " ✓ " tab at the end point
   - The end point of deletion will be marked with "▾."
7. Touch Cutting (✂) tab.
   - The message "**Partial Delete? Selected part of a file will be deleted.**" will appear.
8. Touch "**Yes.**"
   - The selected part of the movie image will be deleted.



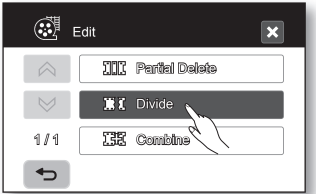


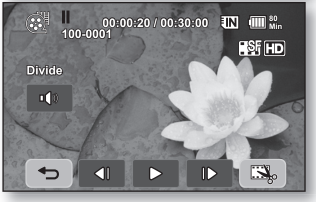


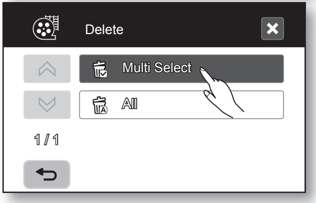
- It operates identically in the full image display (single image displayed on the screen).
- The protect (🔒) indicator will blink if you try to delete a movie image that was previously protected. You must first release the protect function to delete it. ➥page 79
- A deleted part of the movie image can not be recovered.
- If you want to edit from the first, touch Return (↩) tab.
- Partial deletion is not available when the recording is less than 3 seconds.
- Partial deletion is not available within 3 seconds section of the movie image and also isn't available within 3 seconds section of the remaining time.
- When partial deletion is executed, related movie images in the playlist are partially deleted.

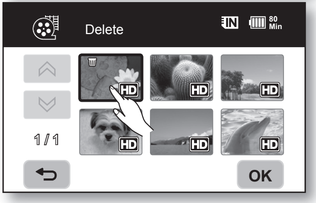
DIVIDING A MOVIE IMAGE

- This function works only in Play mode. ➥page 17
- You can divide a movie image as many times as you want in order to delete a section you no longer need. The movie images will be divided in groups of two.









To divide a movie image

1. Touch Menu (☰) tab → "**Edit**" → "**Divide.**"
   - If the movie image thumbnail you want to edit is not on the screen, touch up (⌃) or down (⌄) tab to change the page.
2. Touch a desired movie image.
   - The selected movie image will be paused.
3. Search the point of division by touching playback related (▶, ⏸, ◀◀, ▶▶, ◀❙ or ❙▶) tabs.
4. Touch pause (⏸) tab at the point of division, then touch Cutting (✂) tab.
   - The message "**Divide a file at this point?**" will appear.
5. Touch "**Yes.**"
   - The selected movie image is divided into two movie images. You can keep dividing images as long as they are 3 seconds in length.
   - If you want to delete an unwanted section of a movie image, divide the movie first, and then delete the image (section) you no longer need. After dividing the movie image, you can also combine other desired movie images (see page 75).
   - The second image of the divided image will be displayed at the end of the thumbnail index.

To delete a movie image you no longer need

1. Touch Menu (☰) tab → "**Delete.**"
2. Touch **"Multi Select.**

   Touch image to select images to delete.

   The (🗑) indicator is displayed on the selected images.

   Touching the thumbnail image toggles between the thumbnail image being selected for deletion (the (🗑) indicator appears on image) or not (the (🗑) indicator is removed from image). Touch **OK** (OK) tab.
3. The message according to the selected option will appear. Touch **"Yes."**
   - The selected images will be deleted.

editing movie images

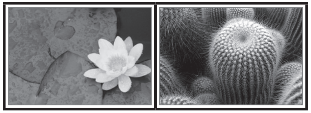
Example: You can divide a movie image into two in order to delete a section you no longer need.

Before dividing

0~60 seconds

The movie image is divided into two movie images.

After image is divided at 30 second point



0~30 seconds **31~60 seconds**

After deleting first image

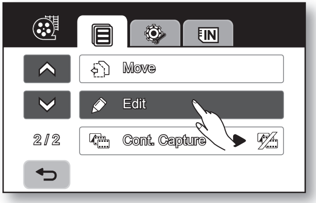
0~30 seconds

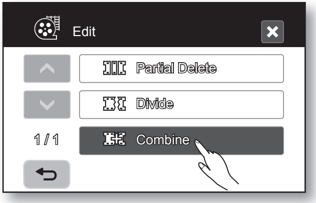
- The protect (🔒) indicator will blink if you try to divide a movie image that was previously protected. You must first release the protect function to divide it. ➥page 79
- Search and slow playback are useful when designating division points.
- The division point may drift before or after the designated point by approximately 0.5 seconds.
- A movie image whose recording time is 3 seconds or less cannot be divided.
- Photo images cannot be divided.
- The divide function will work only in the thumbnail index view.
- When the movie image is divided, the first image of the divided images is stored in the playlist again.
- You can also access it by using the **Q.MENU** button.
  Press **Q.MENU** button. → Touch “**Edit.**” → Touch “**Divide.**”

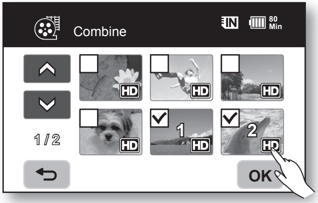
COMBINING TWO MOVIE IMAGES

- This function works only in Play mode. ➥page 17
- You can combine two different movie images.

1. Touch Menu (▤) tab → "**Edit**" → "**Combine.**"
   - If the movie image thumbnail you want to edit is not on the screen, touch up (∧) or down (∨) tab to scroll to the next group of options.
2. Touch movie images to be combined.
   - The (✓) indicator is displayed on the selected movie images.
   - Touching the movie thumbnail image toggles between the movie thumbnail image being selected for combining(the (✓) indicator appears on image) or not (the (✓) indicator is removed from image).
3. Touch **OK** (OK) tab.
   The message "**Combine selected two files?**" will appear.
4. Touch "**Yes.**"
   - The thumbnail of the first movie image will appear in the combined movie image.





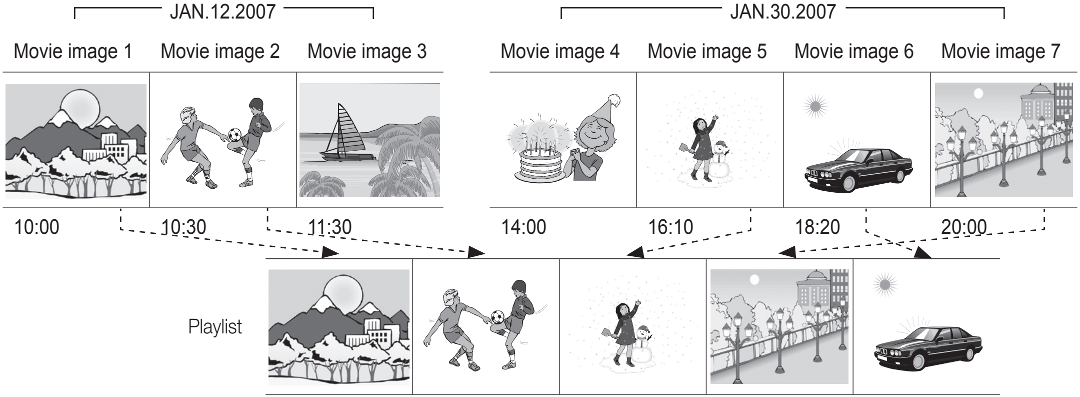


- It is not possible to combine two files that have different recording format (HD/SD).
- You can not combine the protected images. You must first release the protect function to paste it. ➥page 79
- The two movie images are combined in the selected order and restored as a movie image.
- The original movie images will not be preserved.
- Photo images cannot be combined.
- You can also access it by using the **Q.MENU** button.
  Press **Q.MENU** button. → Touch "**Edit.**" → Touch "**Combine.**"
- A maximum of 2 movie images can be combined at a time.

PLAYLIST

What's the "Playlist?"

The playlist is created by gathering your favorite recorded movie images. Since the playlist is not created by copying data, it will consume little of the storage capacity. When creating or deleting a playlist, the original movie image will not be erased. In addition, adding or deleting movie images from a playlist does not affect the original movie images.

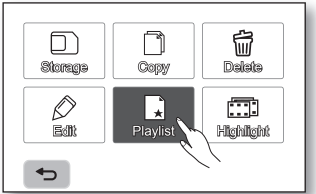

JAN.12.2007
JAN.30.2007
Movie image 1
Movie image 2
Movie image 3
Movie image 4
Movie image 5
Movie image 6
Movie image 7
10:00
10:30
11:30
14:00
16:10
18:20
20:00
Playlist

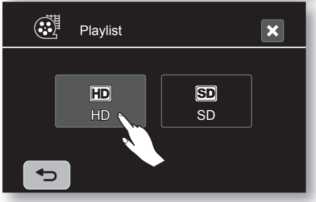
Creating the playlist

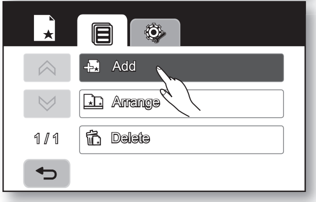
- **This function works only in Play mode using the Q.MENU button.** ➥page 47
- You can create a playlist on this HD camcorder by gathering your favorites from the recorded movie images. Since the playlist is not created by copying data, you will consume little of the storage capacity.

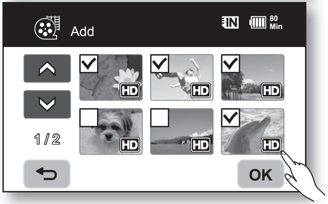
1. Press the **Q.MENU** button.
2. Touch "**Playlist**" → "**HD**" or "**SD**" (creating playlist according to movie quality) → Menu (▤) tab → "**Add.**"
3. Select and touch movie images to add to the playlist.
   - The (✓) indicator is displayed on the selected movie images.
   - Touching the movie thumbnail image toggles between the movie thumbnail image being selected for creating a playlist (the (✓) indicator appears on image) or not (the (✓) indicator is removed from image).
   - You can not select the different quality (HD/SD) movie image with the image being selected.
4. Touch **OK** (OK) tab.
   - The message "**Add selected files to Playlist?**" will appear.
5. Touch "**Yes.**"
   - When creation of a playlist is completed, the thumbnail view of the playlist will appear.
   - You can play a playlist in the same manner as you play a movie image. ➥page 39

- If free space available on the storage is insufficient, creation of new playlist may not be possible. Delete unnecessary movie images.
- Up to 64 movie images can be included in playlist.
- When playing back the playlist, the counter refers to total counter of the playlist.
- You can add a movie image to the playlist in the same manner as above.





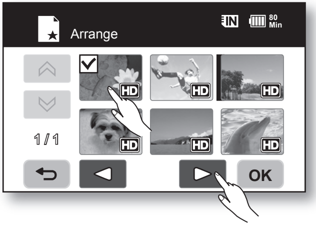




editing movie images

Arranging the order of movie images within a playlist

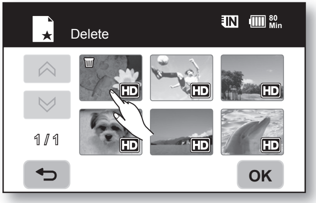
You can arrange movie images within a playlist by moving them to desired positions.



1. Touch "**Playlist**" → "**HD**" or "**SD**" (arranging playlist according to movie quality) → Menu (☰) tab → "**Arrange.**"
2. Touch the movie image to be moved.
   - The (✓) indicator is displayed on the selected movie images.
   - Touching the movie thumbnail image toggles between the movie thumbnail image being selected for arranging (the (✓) indicator appears on image) or not (the (✓) indicator is removed from image).
   - A bar will also appear next to the movie image.
3. Touch previous (◁) or next (▷) tab to move the bar to the position of your choice, then touch **OK** (OK) tab.
   - The selected movie image will be moved to the new position.

Deleting movie images from a playlist

You can delete undesired movie images within the playlist.



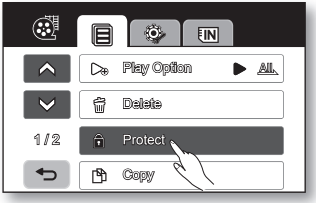
1. Touch "**Playlist**" → "**HD**" or "**SD**" (deleting playlist according to movie quality) → Menu (☰) tab → "**Delete.**"
2. Touch movie image to be deleted.
   - The (🗑) indicator is displayed on the selected movie images.
   - Touching the movie thumbnail image toggles between the movie thumbnail image being selected for deletion(the (🗑) indicator appears on image) or not (the (🗑) indicator is removed from image).
3. Touch **OK** (OK) tab.
   - The message "**Delete selected files from Playlist? Original file is not deleted.**" will appear.
4. Touch "**Yes.**"
   - The selected playlists will be deleted.

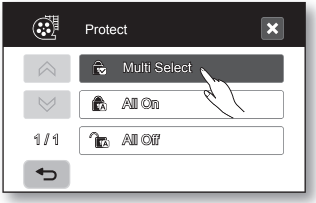
image management

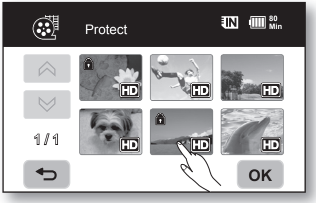
This chapter describes information about movie or photo file management tools such as protection, deletion, copy, and move. Image management cannot be performed when the battery is low.

PROTECTION FROM ACCIDENTAL ERASURE

- This function works only in Play mode. ➥page 17
- You can protect important images from accidental erasure.
- If you execute formatting, all files including protected files will be erased. ➥page 68







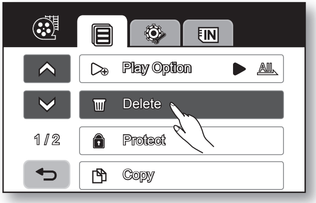
1. Touch Movie (🎞) tab or Photo (🖼) tab.
2. Touch Menu (≡) tab → "**Protect.**"
3. Touch the desired option tab on the screen (**"Multi Select," "All On"** or **"All Off"**).
   - "**Multi Select**": Protects individual images.
     - To protect individual images, touch images in order to select them for protection.
       The (🔒) indicator is displayed on the selected movie images.
       Touching the thumbnail image toggles between the thumbnail image being selected for protection (the (🔒) indicator appears on image) or not (the (🔒) indicator is removed from image). Touch **OK** (OK) tab.
   - "**All On**": Protects all images.
     - To protect all images, simply touch "**All On.**"
   - "**All Off**": Releases the protected images all at once.
4. The message according to the selected option will appear. Touch **"Yes."**
   - After completing, the selected images will be protected.

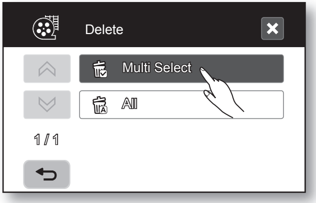
- This function operates identically in the full image display mode (single image displayed on the screen).
- Protected images will show the (🔒) indicator when they are displayed.
- If the write protection tab on the memory card is set to lock, you cannot set image protection. ➥page 29

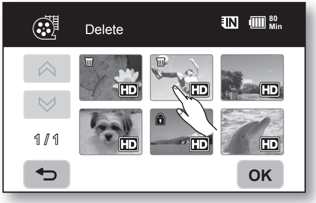
DELETING IMAGES

- This function works only in Play mode. ➥page 17
- You can erase the images recorded on the storage media.
- An image that has been deleted cannot be recovered.

1. Touch Movie (🎞) tab or Photo (🖼) tab.
2. Touch Menu (☰) tab → "**Delete.**"
3. Touch the desired option tab on the screen (**"Multi Select"** or **"All"**).
   - "**Multi Select**": Deletes individual images.
     - To delete individual images, touch images in order to select them for deletion. The (🗑) indicator is displayed on the selected images. Touching the thumbnail image toggles between the thumbnail image being selected for deletion (the (🗑) indicator appears on image) or not (the (🗑) indicator is removed from image). Touch **OK** (OK) tab.
   - "**All**": Deletes all images.
     - To delete all images, simply touch "**All.**"
4. The message according to the selected option will appear. Touch **"Yes."**
   - After completion, selected images will be deleted. (Accordingly, the deleted files also disappear in playlist. ➥page 77)







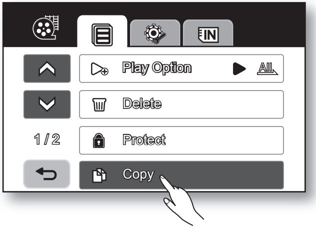
- This function operates identically in the full image display mode (single image displayed on the screen).
- To protect important images from accidental deletion, activate the image protection. ➥page 79
- The protect (🔒) indicator will blink if you try to delete a image that was previously protected. ➥page 79
  You must release the protect function to delete the image.
  - If the write protection tab on the memory card is set to lock, you cannot delete. ➥page 29
- You can also format the storage media to delete all the images at once. Be aware that all files and data including protected files will be erased. ➥page 68
- In the quick menu, you can delete all files only (you can not delete a file individually.).

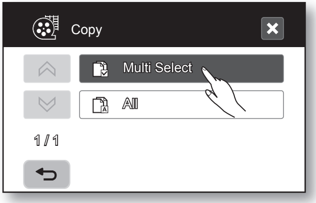
COPYING IMAGES (SC-HMX10A/HMX10C/HMX10CN/HMX10ED ONLY)

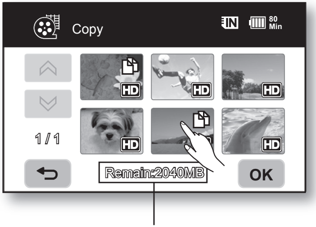
- This function works only in Play mode. ➥page 17
- You can copy images between the built-in memory and a memory card.
- Images are copied to the destination storage while leaving original images in the source storage.
  (It copies from the currently-used storage to another. For example, if the built-in memory is used, it copies to a memory card.)
- Make sure that the memory card has been inserted.

1. Touch Movie (🎞) tab or Photo (🖼) tab.
2. Touch Menu (▤) tab → "**Copy.**"
3. Touch the desired option tab on the screen (**"Multi Select"** or **"All"**).
   - "**Multi Select**": Copy individual images.
     - Touch images you want to copy. The (⎘) indicator is displayed on the selected movie images. Touching the thumbnail image toggles between the thumbnail image being selected for copying (the (⎘) indicator appears on image) or not (the (⎘) indicator is removed from image). Touch **OK** (OK) tab.
   - "**All**": Copy all images.
     - To copy all images, simply touch "**All.**"
4. The message according to the selected option will appear. Touch **"Yes."**
   - After completion, selected images will be copied.

- If free space available on the storage is insufficient, copying may not be possible. Delete unnecessary images. ➥page 80
- Be sure to connect AC power adaptor when using copy function.
- In the quick menu, all the thumbnail images are selected. Touch the movie thumbnail images you don't want to copy. The (⎘) indicator disappears from the image. Also, if there is not enough space in the destination storage to copy, files are selected in the order from the first as long as the space allows.







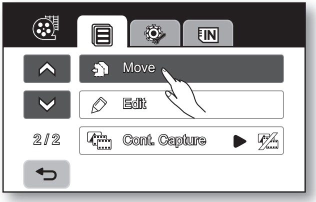
Remained capacity of destination storage

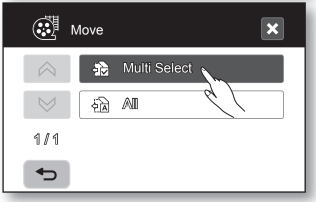
MOVING IMAGES (SC-HMX10A/HMX10C/HMX10CN/HMX10ED ONLY)

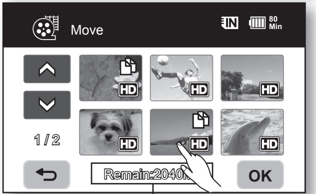
- This function works only in Play mode. ➥page 17
- You can move images between built-in memory and memory card.
- Images are moved to the destination storage. The original images (except read-only files) in the source storage are deleted. (It moves from the currently-used storage to another. For example, if the built-in memory is used, it moves to a memory card.)
- Make sure that memory card has been inserted.

1. Touch Movie (🎞) tab or Photo (🖼) tab.
2. Touch Menu (☰) tab → "**Move.**"
3. Touch the desired option tab on the screen (**"Multi Select"** or **"All"**).
   - "**Multi Select**": Moves individual images.
     - Touch images you want to move.
       The (🗐) indicator is displayed on the selected movie images.
       Touching the thumbnail image toggles between the thumbnail image being selected for moving(the (🗐) indicator appears on image) or not (the (🗐) indicator is removed from image). Touch **OK** (OK) tab.
   - "**A**ll": Moves all images.
     - To mode all images, simply touch "**All.**"
4. The message according to the selected option will appear. Touch **"Yes."**
   - After completion, selected images will be moved.

- Protected images can not be moved. You must release the protect function to move the image. ➥page 79
- If the write protection tab on the memory card is set to lock, you cannot move images to it.
- If free space available on the storage is insufficient, moving images may not be possible. Delete unnecessary images. ➥page 80
- Be sure to connect AC power adaptor when using the move function.







Remained capacity of destination storage

printing photo images

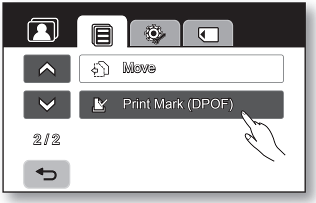
You can print photo images by inserting the DPOF setting card to a DPOF-compatible printer or connecting the HD camcorder to the PictBridge printer.

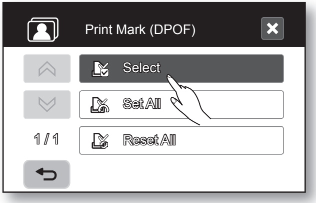
DPOF PRINT SETTING

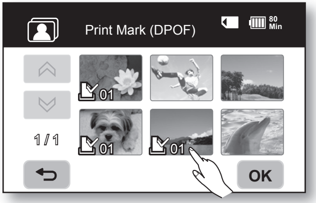
- Print Mark (DPOF) can be set only on photo images stored in the memory card.
- This function works only in Play mode. ➥page 17
- This HD camcorder is compatible with DPOF (Digital Print Order Format). You can set which images to be printed and the number of prints with this HD camcorder. This feature is useful to print with a DPOF-compatible printer or when bringing storage media to a photo lab for printing.

1. Touch Photo (▣) tab.
2. Touch Menu (☰) tab → Storage (◁) tab → **"Card."**
3. Touch Menu (☰) tab → **"Print Mark (DPOF)."**
4. Touch the desired option tab on the screen (**"Select," "Set All"** or **"Reset All"**).
  - "**Select**": Print-marks individual images.
    - Touch images to select them for printing.
      The (✓) indicator is displayed on the selected images.
      Touching the photo thumbnail image toggles between the photo thumbnail image being selected for printing (the (✓) indicator appears on image) or not (the (✓) indicator is removed from image).
      Touch **OK** (OK) tab.
  - "**Set All**": Print-marks all images.
    - Simply touch "**Set All.**"
  - **"Reset All"**: Removes the print mark.
    - Touch **"Reset All."**

5. The message according to the selected option will appear. Touch **"Yes."**







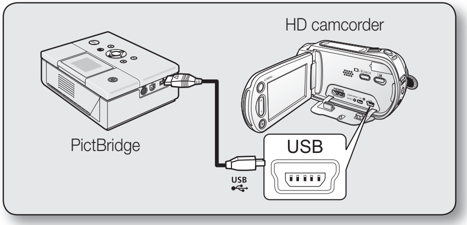
> You can set the number of prints in the single display view only.
> Select the photo image to print in the single display mode, and touch Menu (☰) tab → "**Print Mark (DPOF)**" → decrease (−) or increase (+) tab (select the number of printing). Up to 99 copies can be set to print of each image.

- This function operates identically in the full image display mode (single image displayed on the screen).
- Print marked photo images will show the (✓) indicator when they are displayed.
- The "**Reset All"** and **"Set All**" options may take a long time depending on the number of stored images.

printing photo images

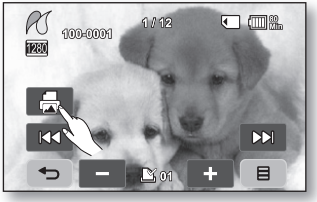
DIRECT PRINTING WITH A PICTBRIDGE PRINTER

If your printer is compatible with PictBridge, photo images can be printed easily by connecting the camcorder with the USB cable directly to the printer. DPOF setting can also be used. ➥page 83



NOTICE: After selecting "**PictBridge**" in the menu, connect the USB cable.

1. Set the "**USB Connect**" to "**PictBridge**". ➥page 70
2. Connect your HD camcorder to the printer using the provided USB cable.
3. Turn your printer power on.
   - The thumbnail index view of the photo image will appear.
4. Touch a photo image to print, then touch Print (⎙) tab.
   - To search for a photo image, touch previous image (⏮) or next image (⏭) tab.
   - The selected photo image will be printed.
   - After the connection, the easy printing menu will display on the LCD screen. To display the PictBridge menu, touch the Menu (≡) tab. For more information about the PictBridge menu, refer to page 85.



Setting the number of copies to print

Touch decrease (−) or increase (+) tab to select the number of prints.

- If the image moves to the previous or next, the number of copies is reset.

To cancel print setting

Touch Return (↩) tab on the screen.

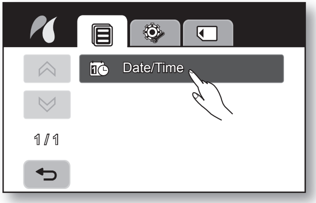
To stop printing after printing starts

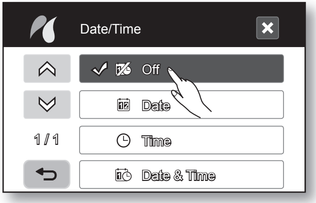
The confirmation screen appears while printing.
Touch "**Cancel**" on the screen.

PictBridge menu

Setting the date/time imprint option

Touch Menu (▤) tab → "**Date/Time**" → "**Off,**" "**Date,**" "**Time**", or "**Date & Time**" → Return (↩) tab.





To print using the DPOF setting

If the printer is compatible with DPOF, you can use the DPOF setting. ➥page 83

- If the printer is not recognized, or to print again after direct printing with a PictBridge printer, remove the USB cable, select "**PictBridge**" in the menu again, and then reconnect the cable.
- If the "**USB Connect**" menu is set to "**Mass Storage**" you cannot connect a PictBridge compatible printer to the camcorder and a "**Fail USB Connecting**" message will appear. You must touch the "**Switch Mode**" tab → "**PictBridge**" tab on the screen, and the "**Connecting as Printer Mode**" message will appear.
- In some instances the HD camcorder may not connect to the printer. If connection fails, disconnect the USB cable and turn off the printer and back on. Then, connect the USB cable and set the HD camcorder to "**PictBridge.**"
- The date/time imprint option may not be supported by all printers. Check with your printer manufacturer. The "**Date/Time**" menu cannot be setup if the printer does not support this option.
- PictBridge™ is a registered trademark of CIPA (Camera & Imaging Products Association), an image transfer standard developed by Canon, Fuji, HP, Olympus, Seiko Epson, and Sony.
- Use the USB cable provided with the HD camcorder.
- Use the AC power adaptor for your HD camcorder during PictBridge direct printing. Turning your HD camcorder off during printing might damage data on the storage media.
- Movie images are not available for printing.
- You can set various printing options depending on the printer. Please refer to the user manual of the printer for details.
- Do not remove USB cable or memory card during printing.
- You may not print photo images recorded on other devices.

connecting to a PC

This chapter explains how to connect the camcorder to a PC using the USB cable for various functions.
✪ When connecting a USB cable to a PC, refer to the software installation instructions and PC specifications below.

SYSTEM REQUIREMENTS

CyberLink DVD Suite

The following requirements must be satisfied to use CyberLink DVD Suite.

OS	Windows Vista or XP (Windows XP Service Pack 2)
CPU	Intel® Pentium® 4, 3.2 GHz / AMD Athlon 64FX, 2.6GHz recommended
RAM	512 MB (1 GB and above recommended)
USB	USB2.0
Display	1024 x 768, 16-bit color or higher
Miscellaneous	Internet Explorer 5.5 or later
Supported media	DVD-R/-RW, DVD+R/+RW, DVD-RAM, CD-R/RW For the compatible DVD/CD burners, refer to CyberLink web site: http://www.cyberlink.com/english/products/powerproducer/4/comp_dvd_drive.jsp
Video card	nVIDIA Geforce 7600GT or higher ATi X1600 series or higher

- DVD Suite is optimized for Intel Core 2 Duo processors and CPUs with MMX, SSE, SSE2, 3DNow!, and Intel Hyper Threading technology.
- The system requirements information above is not a guarantee that the provided software will work on all personal computers meeting those requirements.
- If you have a Unified Codec previously installed on your PC, this may cause an error from CyberLink DVD Suite. Please remove the existing Codec before proceeding with the installation of the suite.
- If you experience corrupted screen or abnormal color display, you must update the existing video driver to the latest. You can download the latest driver for your monitor from the applicable maker's customer service web page.

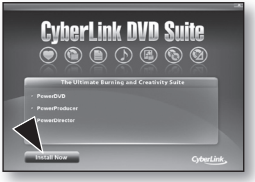
INSTALLING THE CyberLink DVD Suite

DVD Suite is software for easily editing MPEG, AVI, and other video files, still images, and other contents for creating a movie.

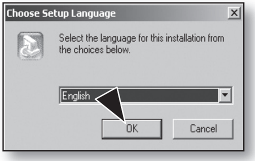
Before you begin:

Quit any other software you are using. (Check that there are no other application icons on the status bar.)

1. Load the provided CD-ROM into the PC.
    - Set up screen appears within several seconds.
      If the setup screen does not appears, doubleclick the CD-ROM icon in the "My Computer" window.
    - Click "Install Now."



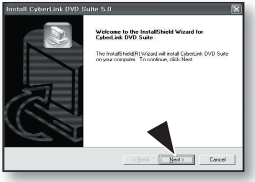
2. Select the desired language and click "OK"


Choose Setup Language

Select the language for this installation from the choices below.

English

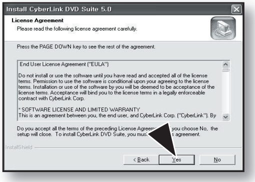
3. "CyberLink DVD suite install Shield Wizard" screen appears.
    - Click "Next"


Install CyberLink DVD Suite 5.0

Welcome to the InstallShield Wizard for CyberLink DVD Suite

The InstallShield(R) Wizard will install CyberLink DVD Suite on your computer. To continue, click Next.

4. "License Agreement" screen appears.
    - Click "Yes"


Install CyberLink DVD Suite 5.0

License Agreement

Please read the following license agreement carefully.

Press the PAGE DOWN key to see the rest of the agreement.

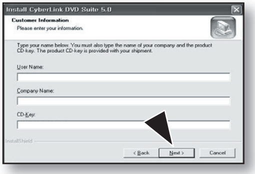
End User License Agreement ("EULA")

Do not install or use the software until you have read and accepted all of the license terms. Permission to use the software is conditional upon your agreeing to the license terms. Installation or use of the software by you will be deemed to be acceptance of the license terms. Acceptance will bind you to the license terms in a legally enforceable contract with CyberLink Corp.

* SOFTWARE LICENSE AND LIMITED WARRANTY
This is an agreement between you, the end user, and CyberLink Corp. ("CyberLink"). By

Do you accept all the terms of the preceding License Agreem you choose No, the setup will close. To install CyberLink DVD Suite, you mus s agreement.

5. “Customer Information” screen appears.
   - Click “Next.”



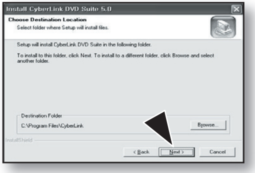
Install CyberLink DVD Suite 5.0

Customer Information

Please enter your information.

Type your name below. You must also type the name of your company and the product CD-key. The product CD-key is provided with your shipment.

6. “Choose Destination Location” screen appears.
   - Choose the destination location which you want to install.
   - Click “Next.”



Install CyberLink DVD Suite 5.0

Choose Destination Location

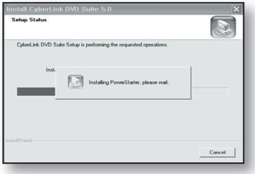
Select folder where Setup will install files.

Setup will install CyberLink DVD Suite in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder: C:\Program Files\CyberLink

7. “Setup status” screen appears.
   - The installation progresses in order as follows “Power Starter” → ”Power DVD” → “Power Director” → “Menus” → “Power Producer” → “Power Producer Template.”
   - Wait for a moment until the installation is finished and “Setup Complete” screen appears.



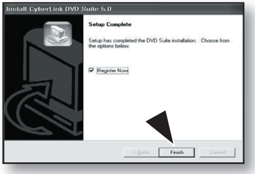
Install CyberLink DVD Suite 5.0

Setup Status

CyberLink DVD Suite Setup is performing the requested operations.

Installing PowerStarter, please wait.

8. “Setup Complete” appears.
   - Click “Finish.”
   - The icon of “CyberLink DVD Suite” is created on the desktop.



Install CyberLink DVD Suite 5.0

Setup Complete

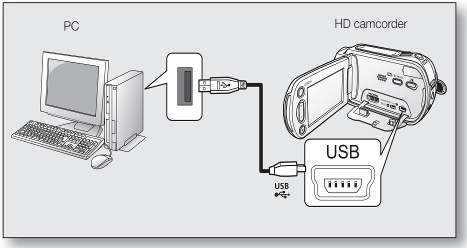
Setup has completed the DVD Suite installation. Choose from the options below.

☑ Register Now

- If you perform installation of software that is already installed, uninstallation will start. In this case, perform the installation again after uninstallation is finished.
- This manual only refers to software installation and PC connection. For more details on software, refer to the “Online help/Read me” on the CyberLink DVD Suite CD.
- Frame drop may occur in preview screen while you are using Power Producer. However, this does not affect any burned image on DVD title.

CONNECTING THE USB CABLE

To copy the movie files and photo files to your PC, connect your HD camcorder to the PC with a USB cable.

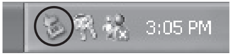


1. Set the "**USB Connect**" to "**Mass Storage.**" ➥page 70
2. Connect the HD camcorder to the PC with a USB cable.

- Don't apply excessive force when inserting or extracting a USB cable into/from a USB jack.
- Insert a USB after checking the direction of its insertion is correct.
- Use the provided USB cable.

Disconnecting the USB cable

First disconnect the USB cable and turn off the HD camcorder.
After completing the data transmission, you must disconnect the cable in the following way:



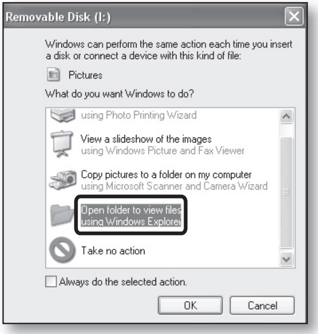
1. Click the "Unplug or eject hardware" icon on the task tray.
2. Select "USB Mass Storage Device" or "USB Disk," and then click "Stop."
3. Click "OK."
4. Disconnect the USB cable from the HD camcorder and PC.

- We recommend using the AC power adaptor as the power supply instead of the battery pack.
- When the USB cable is connected, turning the camcorder on or off may cause the PC to malfunction.
- If you disconnect the USB cable from the PC or the HD camcorder while transferring, the data transmission will stop and the data may be damaged.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the HD camcorder may not work properly. If this occurs, remove all USB devices from the PC and reconnect the HD camcorder.

VIEWING THE CONTENTS OF STORAGE MEDIA

1. Slide the **POWER** switch downward to turn the HD camcorder on.
   - Set the "**USB Connect**" to "**Mass Storage.**" ➥page 70
     (It is set to "**Mass Storage**" by default when you purchase the HD camcorder.)
   - Set the appropriate storage media. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only) ➥page 26
     (If you want to record on a memory card, insert the memory card.)
2. Connect the HD camcorder to the PC with a USB cable. ➥page 89
   - The "Removable Disk" window appears on the PC's screen after a moment.
   - Two removable disks appear when connecting a USB. (SC-HMX10A/HMX10C/HMX10CN/HMX10ED only).
     The built-in memory is the first recognized drive of two removable discs newly registered in the 'My Computer'. For example, when (F:) drive and (G:) drive are recognized in the PC, (F:) drive and (G:) drive are the built-in memory and memory card, respectively.
     You can select the desired memory type.
   - Select "Open folders to view files using Windows Explorer" and click "OK."
3. The folders in the storage media appear.
   - Different file types are stored in different folders.

- If the "Removable Disk" window does not appear, confirm the connection (page 89) or perform steps 1 and 2 again.
- When the removable disk does not appear automatically, open the removable disk folder of My Computer.



Removable Disk (I:)

Windows can perform the same action each time you insert a disk or connect a device with this kind of file:

Pictures

What do you want Windows to do?

using Photo Printing Wizard

View a slideshow of the images
using Windows Picture and Fax Viewer

Copy pictures to a folder on my computer
using Microsoft Scanner and Camera Wizard

Open folder to view files
using Windows Explorer

Take no action

☐ Always do the selected action.

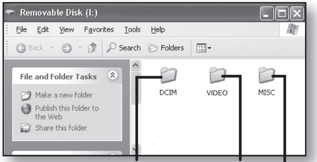


Photo images
Movie image
setting data

Structure of folders and files on the storage media

- The folder and file structure for storage media is as follows:
- Don’t arbitrarily change or remove the folder or file name. It may not be playable.
- The file naming follows DCF (Design rule for Camera File System).

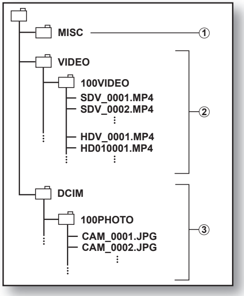

MISC
①
VIDEO
100VIDEO
SDV_0001.MP4
SDV_0002.MP4
HDV_0001.MP4
HD010001.MP4
②
DCIM
100PHOTO
CAM_0001.JPG
CAM_0002.JPG
③

Image configuration file ❶

This is where data for photo files such as DPOF is stored.

Movie image file (H.264) ❷

The HD-quality movie images have HDV_####.MP4 format and the SD-quality movie images have SDV_####.MP4 format. The file number automatically increases when a new movie image file is created. Up to 999 files are created in one folder. A new folder is created when more than 999 files are created.

For example: If the size of one recording is over 2GB (more than 22 minutes in HD Super Finemode) file HDV_0001.MP4 is closed, and the file, HD010001.MP4 is created.

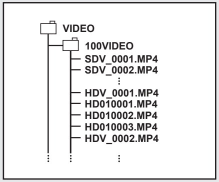

VIDEO
100VIDEO
SDV_0001.MP4
SDV_0002.MP4
HDV_0001.MP4
HD010001.MP4
HD010002.MP4
HD010003.MP4
HDV_0002.MP4

Photo image file ❸

As in movie image files, the file number automatically increases when a new image file is created. The maximum file number allowed is the same as in movie image files. A new folder stores files from CAM_0001.JPG. The folder name increases in the order of 100PHOTO → 101PHOTO etc.

Up to 999 files are created in one folder. A new folder is created when more than 999 files are created.

Image format

Movie image

- Movie images are compressed in H.264 format. The file extension is "**.MP4.**"
- The image size is 1280x720 (HD) or 720x480 (SD). ➥page 60

Photo image

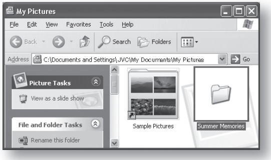
- Photo images are compressed in JPEG (Joint Photographic Experts Group) format. The file extension is "**.JPG.**"
- The image size is 2048x1536, 1440x1080, or 640x480. ➥page 63

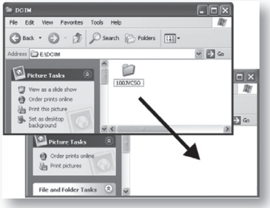
- When the 999th file is created in the 999th folder (i.e. HDV_0999.MP4 is created in the 999VIDEO folder), a new folder cannot be created anymore. Set "**File No.**" to "**Reset**" at this time.
- You may modify the name of a file/folder stored in the storage media using a PC. This HD camcorder may not recognize modified files.

TRANSFERRING FILES FROM THE HD CAMCORDER TO YOUR PC

You can copy the movie and photo images to your PC and play them back.

1. Execute the procedure in "Viewing the contents of storage media." ➥page 90
   - The folders in the storage media appear.
2. Create a new folder, enter the folder name, then doubleclick it.
3. Select the folder to copy, then drag and drop it into the destination folder.
   - The folder is copied from the storage media (memory card (all models) or built-in memory (SC-HMX10A/HMX10C/HMX10CN/HMX10ED)) to the PC.


My Pictures
File Edit View Favorites Tools Help
Back
Search
Folders
Address
C:\Documents and Settings\JVC\My Documents\My Pictures
Go
Picture Tasks
View as a slide show
File and Folder Tasks
Rename this folder
Sample Pictures
Summer Memories


DCIM
File Edit View Favorites Tools Help
Back
Search
Folders
Address
E:\DCIM
Go
Picture Tasks
View as a slide show
Order prints online
Print this picture
Set as desktop background
100JVCSO
Picture Tasks
Order prints online
Print pictures
File and Folder Tasks

To playback the movie image copied to PC

Use the provided software to play back the movie images in the PC. The movie images recorded on your HD camcorder may not be played back in other software.

maintenance & additional information

MAINTENANCE

Your HD camcorder is a product of superior design and craftsmanship and should be treated with care.
The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years.

- **For safekeeping of the HD camcorder, turn off the HD camcorder.**
  - **Remove the battery pack and AC power adaptor.** ➥pages 13,16
  - **Remove the memory card.** ➥page 27

Cautions when storing

- **Do not leave the HD camcorder in a place where the temperature is very high for a long period of time:** The temperature inside a closed vehicle or trunk can become very high in hot weather. If you leave the HD camcorder in such a place, it could malfunction or the case could be damaged. Do not expose the HD camcorder to direct sunlight or place it near a heater.
- **Do not store the HD camcorder in a place where the humidity is high or in a dusty place:** Dust entering the HD camcorder could cause a malfunction. If humidity is high, the lens could become moldy, and the HD camcorder could become inoperative. It is recommended that you put the HD camcorder in a box together with a small silica bag when storing it in a closet, etc.
- **Do not store the HD camcorder in a place subject to strong magnetism or intense vibration:** This could cause malfunctions.
- **Detach the battery pack from the HD camcorder and store it in a cool place:** Leaving the battery pack attached or storing it at high temperature could shorten its life.

Cleaning the HD camcorder

Before cleaning, turn off the HD camcorder and remove the battery pack and AC power adaptor.

- **To clean the exterior**
  - Wipe gently with a soft dry cloth. Do not apply excessive force when cleaning, gently rub the surface.
  - Do not use benzene or thinner to clean the camcorder. The coating of exterior could peel off or the case could deteriorate.
- **To clean the LCD screen**
  Wipe gently with a soft dry cloth. Be careful not to damage the monitor.
- **To clean the lens**
  Use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloth or your fingers. If necessary, wipe gently with lens cleaning paper.
  - Mold may form if the lens is left dirty.
  - If the lens looks dimmer, turn off the HD camcorder and leave it for about 1 hour.

ADDITIONAL INFORMATION

Storage media

- **Be sure to follow the guidelines below to prevent corruption or damage to your recorded data.**
  - Do not bend or drop the storage media, or subject it to strong pressure, jolts or vibrations.
  - Do not splash the storage media with water.
  - Do not use, replace, or store the storage media in locations that are exposed to strong static electricity or electrical noise.
  - Do not turn off the camcorder power or remove the battery or AC power adaptor during recording, playback, or when otherwise accessing the storage media.
  - Do not bring the storage media near objects that have a strong magnetic field or that emit strong electromagnetic waves.
  - Do not store the storage media in locations with high temperature or high humidity.
  - Do not touch the metal parts.
- **Copy the recorded files to your PC. Samsung shall not be responsible for any lost data. (It is recommended that you copy the data from your PC to other media for storage.)**
- **A malfunction may cause the storage media to fail to operate properly. Samsung will not provide any compensation for any lost contents.**
- **Refer to pages 26-30 for details.**

LCD screen

- **To prevent damage to the LCD screen**
  - Do not push it too hard or knock it on anything.
  - Do not place the camcorder with the LCD screen on the bottom.
- **To prolong service life, avoid rubbing it with a coarse cloth.**
- **Be aware of the following phenomena for LCD screen use. They are not malfunctions.**
  - While using the camcorder, the surface around the LCD screen may heat up.
  - If you leave power on for a long time, the surface around the LCD screen becomes hot.

Battery packs

The supplied battery pack is a lithium-ion battery. Before using the supplied battery pack or an optional battery pack, be sure to read the following cautions:

- **To avoid hazards**
  - Do not burn.
  - Do not short-circuit the terminals. When transporting, carry the battery in a plastic bag.
  - Do not modify or disassemble.
  - Do not expose the battery to temperatures exceeding 60°C (140°F), as this may cause the battery to overheat, explode or catch fire.
- To prevent damage and prolong service life
  - Do not subject to unnecessary shock.
  - Charge in an environment where temperatures are within the tolerances shown below. This is a chemical reaction type battery - cooler temperatures impede chemical reaction, while warmer temperatures can prevent complete charging.
  - Store in a cool, dry place. Extended exposure to high temperatures will increase natural discharge and shorten service life.
  - Fully charge and then fully discharge the battery every 6 months when storing the battery pack over a long time period.
  - Remove from charger or powered unit when not in use, as these components may use current even when switched off.

- It is recommended that only genuine **Samsung** batteries are used in this camcorder. Using generic non-**Samsung** batteries can cause damage to the internal charging circuitry.
- It is normal for the battery pack to be warm after charging, or after use.
- **Temperature range specifications**
  Charging: 10°C to 35°C (50°F to 95°F)
  Operation: 0°C to 40°C (32°F to 104°F)
  Storage: -20°C to 60°C (-4°F to 132°F)
- The lower the temperature, the longer recharging takes.
- Refer to pages 15-16 for details.

On charging the built-in rechargeable battery

Your camcorder has a built-in rechargeable battery to retain the date, time, and other settings even when the power switch is set to off. The built-in rechargeable battery is always charged while your camcorder is connected to the wall outlet via the AC power adaptor or while the battery pack is attached. The rechargeable battery will be fully discharged in about 6 months if you do not use your camcorder at all. Use your camcorder after charging the built-in rechargeable battery.

However, even if the built-in rechargeable battery is not charged, the camcorder operation will not be affected as long as you are not recording the date.

USING YOUR HD CAMCORDER ABROAD

- **Each country or region has its own electric and color systems.**
- **Before using your HD camcorder abroad, check the following items.**

- **Power sources**
  The provided AC adaptor features automatic voltage selection in the AC range from 100 V to 240 V.
  You can use your camcorder in any countries/regions using the AC power adaptor supplied with your camcorder within the AC 100 V to 240 V, 50/60 Hz range.
  Use a commercially available AC plug adaptor, if necessary, depending on the design of the wall outlet.
- **Viewing images recorded with HD (high definition) image quality**
  In countries/regions where 720/60p is supported, you can view the images with the same HD (high definition) image quality as that of the recorded images. You need an NTSC-system-based and 720/60p compatible TV (or monitor) with an HDMI or Component cable connected.
- **Viewing images recorded with SD (standard definition) image quality**
  To view images recorded with SD (standard definition) image quality, you need an NTSC-system-based TV with Audio/Video input jacks. A component cable or Multi-AV cable connected.
- **On TV color systems**
  Your camcorder is an **NTSC**-system-based camcorder.
  If you want to view your recordings on a TV or to copy it to an external device, it must be an **NTSC**-system-based TV or an external device and have the appropriate Audio/Video jacks. Otherwise, you may need to use a separate video format transcoder (NTSC-PAL format converter).

NTSC-compatible countries/regions
Bahamas, Canada, Central America, Japan, Korea, Mexico, Philippines, Taiwan, United States of America, etc.

PAL-compatible countries/regions
Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

You can make recordings with your HD camcorder and view pictures on the LCD screen from anywhere in the world.

TROUBLESHOOTING

Before contacting a Samsung authorized service center, perform the following simple checks.
They may save you the time and expense of an unnecessary call.

Warning indicators and messages

Battery pack

Message	Icon	Informs that...	Action
Low Battery	-	The battery pack is almost discharged.	• Replace with a charged battery or connect the AC power adaptor.
Low Battery Connect AC adaptor and try again	-	Delete, Copy and Move functions are inoperable due to the exhausted battery.	• Replace with a charged battery or connect the AC power adaptor.
Check the authenticity of this battery	-	The battery pack can not pass authenticity check.	• Check the battery's authenticity and change to new one. • It is recommended that only genuine Samsung batteries are used in this camcorder.

Storage media

Message	Icon	Informs that...	Action
Memory full! *		There is not enough space to record on built-in memory.	• Delete unnecessary files on the built-in memory. • Back-up files to PC or another storage media and delete files. • Use a memory card.
Insert card		There is no memory card inserted in the memory card slot.	• Insert a memory card. • Use the built-in memory. *
Card Full!		There is not enough space to record on memory card.	• Delete unnecessary files on the memory card. • Back-up files to PC or another storage media and delete files. • Use the bulit-in memory. * • Change memory card to another one has enough free space.

- *: SC-HMX10A/HMX10C/HMX10CN/HMX10ED only

Message	Icon	Informs that...	Action
Card Locked	🔒	The write protection tab on an SD or SDHC card has been set to lock.	• Release write protection tab.
Card Error	⚠	The memory card has some problem and can not be recognized.	• Change memory card to another one.
Not Formatted	⚠	The memory card is not formatted.	• Format the memory card using menu item.
Not Supported Format	⚠	The memory card may have been formatted by another device and may still have existing images on it.	• The image format is not supported. Check the supported file format. ➥ page 92 • Format the memory card using menu item.
Not Supported Card	⚠	The memory card is not supported in this camcorder.	• Change the memory card with the one recommended.
Low Speed Card. Please record a Lower quality.	-	The memory card does not have enough performance to record.	• Record movie to a lower quality. • Change memory card to faster one. ➥ page 27

Recording

Message	Icon	Informs that...	Action
Open Lens Cover	◉	Lens cover is closed.	• Open the lens cover.
Write Error	-	Some problems occur while writing data to storage media.	• Format storage media using menus after back-up important files to PC or another storage media.
Release the EASY.Q	-	You can not operate some functions manually when EASY Q is activated.	• Release EASY Q function.
Recorvering Data…	-	The file was not created normally.	• Wait until data recovery is finished. • Never turn off the power and eject memory card during recording.

Message	Icon	Informs that...	Action
Activate remote control.		Remote function was set to off.	• Set “**Remote**” function to “**On.**”
Number of video files is full. Cannot record video.	-	Folder and files have reached capacity and you can not record.	• Set “**File No.**” to “**Reset.**”
Number of photo files is full. Cannot take a photo.	-	Folder and files have reached capacity and you can not take a picture.	• Set “**File No.**” to “**Reset.**”

Playback

Message	Icon	Informs that...	Action
Not enough free space in Memory. *	-	File editing functions can not be performed because there is not enough free space in the built-in memory.	• Delete unnecessary files on the storage media. • Back-up files to PC or another storage media and delete files.
Not enough free space in Card.	-	File editing functions can not be performed because there is not enough free space in the memory card.	• Delete unnecessary files on the storage media. • Back-up files to PC or another storage media and delete files.
Different format	-	The files you want to Combine are in a different format	• It is not possible to combine two files that have different recording format.
Read Error	-	Some problems occurred during reading data from storage media.	• Format storage media using menus after back-up important files to PC or another storage device.

- *: SC-HMX10A/HMX10C/HMX10CN/HMX10ED only

USB

Message	Icon	Informs that...	Action
Fail Printer Connecting	-	A problem occurred when connecting the camcorder via USB to a printer.	• Check the USB cable. • Try the connecting procedure again. • Switch "**USB connect**" function to "**Mass Storage.**"
Fail USB Connecting	-	A problem occurred when connecting the camcorder via USB to a PC.	• Check the USB cable. • Try the connecting procedure again. • Switch "**USB connect**" function to "**PicBridge.**"
Ink Error	-	There is a problem with the ink cartridge.	• Check the ink cartridge. • Put a new ink cartridge in the printer.
Paper Error	-	There is a problem with the paper.	• Check the paper in the printer. If there is no paper, insert the paper.
File Error	-	There is a problem with the file.	• Your HD camcorder does not support this file format. • Try another file recorded on your HD camcorder.
Printer Error	-	There is a problem with the printer.	• Turn the printer's power off and on. • Contact the printer manufacturer's service center.
Print Error	-	A problem occurred during printing.	• Do not remove power source or eject memory card during printing.

⚠ **CAUTION**

When there is dew condensation, put the camcorder aside for a while before using

- What is dew condensation?
  Dew condensation happens when a HD camcorder is moved to a place where there is a significant temperature difference from the previous place. The Dew condenses on the external or internal lenses of the HD camcorder, and on the reflection lens. When this happens, it may cause a malfunction or damage to the HD camcorder when using the device with the power on while there is dew condensation.
- What can I do?
  Turn the power off and detach the battery pack, and leave it in a dry area for 1~2 hours before using it.
- When does the dew condensation occur?
  When the device is relocated to a place with a higher temperature than the previous location, or when using it in a hot area suddenly, it will cause condensation.
  - When recording outside in cold weather during the winter and then using it in indoors.
  - When recording outside in hot weather after being indoors or inside a car where the A/C was running.

Note before sending your camcorder for repair.

- If these instructions do not solve your problem, contact 1-800- SAMSUNG for your nearest Samsung authorized service center.
- Depending on the problem, the built-in memory may need to be initialized or replaced and the data will be deleted.
  Be sure to back up the data on your PC before sending your camcorder to repair.
  Samsung cannot guarantee any loss of your data.

✪ If these instructions do not solve your problem, contact your nearest Samsung authorized service center.

Symptoms and solutions

Power

Symptom	Explanation/Solution
The HD camcorder does not turn on.	• The battery pack may not be installed on your HD camcorder. Insert a battery pack to the HD camcorder. • The inserted battery pack may be discharged. Charge the battery pack or replace it with a charged one. • If you use AC power adaptor, make sure it is properly connected to wall outlet.
The power turns off automatically.	• Is **"Auto Power Off"** set to **"5 min"**? If no button is pressed for about 5 minutes, the HD camcorder is automatically turned off (**"Auto Power Off"**). To disable this option, change the setting of **"Auto Power Off"** to **"Off."** ➥page 69 • The battery pack is almost exhausted. Charge the battery pack or replace it with a charged one.
Power cannot be turned off.	• Remove the battery pack or unplug AC power adaptor, and connect the power supply to the camcorder again before turning it on. • Press the **RESET** button, and connect the power supply to the camcorder again before turning it on. ➥page 17
The battery pack is quickly discharged.	• The temperature is too low. • The battery pack is not fully charged. Charge the battery pack again. • The battery pack reached its lifespan and cannot be recharged. Use another battery pack.

Displays

Symptom	Explanation/Solution
The TV screen or LCD display has distorted images or has stripes at the top/ bottom or on the left/right.	• It can occur when recording or viewing a 16:9-ratio image on a 4:3-ratio TV, or vice versa. For more details, see the display specification. ➥page 45
Unknown image appears on the LCD screen.	• The HD camcorder is in Demo mode. If you do not want to see Demo image, change the setting **“Demo”** to **“Off.”** ➥page 71
Unknown indicator appears on the screen.	• A warning indicator or message appears on the screen. ➥pages 97-100
The afterimage remains on the LCD screen.	• This occurs if you disconnect the AC power adaptor or remove the battery pack before turning the power off.
The image on the LCD screen looks dark.	• Ambient light too bright. Adjust the brightness and angle of LCD. • Use LCD enhancer function.

Recording

Symptom	Explanation/Solution
Pressing the **Recording start/stop** button does not start recording.	• Press the **MODE** button to set **Movie** (🎥). ➥page 17 • There is not enough free space to record on the storage media. • Check if memory card is not inserted or write-protect tab is set to lock.
The actual recording time is less than the estimated recording time.	• The estimated recording time may vary depeniding on content and features used. • When you record an object that moves fast, the actual recording time may be shortened.

Symptom	**Explanation/Solution**
The recording stops automatically.	• There is no more free space for recording on the storage media. Back up important files on your PC and format the storage media or delete the unnecessary files. • If you make recordings or delete files frequently, the performance of the storage media will be deteriorated. In this case, format the storage media again. • If you use the memory card with low writing speed, the HD camcorder automatically stops recording the movie images and the corresponding message appears on the LCD screen.
When recording a subject illuminated by bright light, a vertical line appears.	• This is not a malfunction.
When the screen is exposed to direct sunlight during recording, the screen becomes red or black for an instant.	• This is not a malfunction.
During recording, the date/time does not display.	• **“Date/Time”** is set to **“Off**.**”** Set the **“Date/Time”** to On. ➥page 66
You cannot record a photo image.	• Set your HD camcorder to Photo mode. ➥page 17 • Release the lock on the write-protection tab of the memory card if any. • The storage media is full. Use a new memory card or format the storage media. ➥page 68 Or remove unnecessary images. ➥page 80
The shutter sound is not heard when you record a photo image.	• Set **“Shutter Sound”** to **“On.”**
The beep sound is not heard.	• Set “**Beep Sound**” to “**On.**” • Beep sound is temporally off while recording movies.

troubleshooting

Symptom	Explanation/Solution
There is a time difference between the point where you press **Recording start/stop** button and the point where the recorded movie starts/stops.	- On your camcorder, there may be a slight time delay between the point when you press **Recording start/stop** button and the actual point where the recorded movie starts/stops. This is not an error.
The aspect ratio (16:9/4:3) of a movie cannot be changed.	- The aspect ratio of a movie at 16:9 cannot be changed to 4:3.
The available recording time or the number of recordable images displayed does not decrease.	- The maximum available recording time displayed is 999 minutes and the maximum number of recordable images displayed is 99,999 even though the actual count exceeds the value displayed. However, the actual available recording time is not affected by the count displayed. For example, when the actual available recording time is "1,066" minutes, "999" will be displayed on the screen.

Storage Media

Symptom	Explanation/Solution
Memory card functions are not operable.	- Insert a memory card into your camcorder properly. ➥page 27 - If you use a memory card formatted on a computer, format it again directly on your camcorder. ➥page 68
Image cannot be moved or deleted.	- Release the lock on the write-protect tab of the memory card (SDHC/SD memory card), if any. ➥page 29 - You cannot move or delete the protected images. Release the protection of the image on the device. ➥page 79
You cannot format the memory card.	- Release the lock on the write-protect tab of the memory card (SDHC/SD memory card), if any. ➥page 29 - The memory card is not supported on your camcorder or card has some problems.
The data file name is not indicated correctly.	- The file may be corrupted. - The file format is not supported by your HD camcorder. - Only the file name is displayed if the directory structure complies with the international standard.

Adjusting the image during recording

Symptom	Explanation/Solution
Focus does not adjust automatically.	• Set **“Focus”** to **“Auto.”** ➥page 56 • The recording conditions are not suitable for auto focus. Adjust the focus manually. ➥page 57 • The lens is dusty on the surface. Clear the lens and check the focus. • Recording is being made in a dark location. Use a light to brighten the area.
The image appears too bright or flickering, or changes in color.	• This may occur when you make a recording under a fluorescent sodium, or mercury lamp. Cancel **“Scene Mode (AE)”** to avoid or minimize this phenomenon. ➥page 52
Image’s color balance is not natural.	• White balance adjustment is required. Adjust to the proper **“White Balance.”** ➥page 53
The subject passing by the frame very quickly appears	• This is called the focal plane phenomenon. This is not a malfunction. Because of the way the image device (CMOS sensor) reads out video signals, the subject passing by the frame rapidly may appear to bend, depending on the recording condition.

Playback on your HD camcorder

Symptom	Explanation/Solution
Using the playback (Play/Pause) function would not start playing.	• Image files recorded using another device may not be played on your HD camcorder. • Check out the memory card compatibility. ➥page 29

Symptom	Explanation/Solution
Photo images stored on a storage media are not displayed in the actual size.	- Photo images recorded on other device may not appear in the actual size. This is not an error.
Playback is interrupted unexpectedly.	- Check if the AC power adaptor or battery back is properly connected and secure.

Playback on other devices (TV, etc)

Symptom	Explanation/Solution
You cannot view the image or hear the sound from the connected device.	- Connect the audio of the component or Multi-AV cable to your camcorder or connected device (TV, HD recorder, etc). (Red color- right, White color- left) - The connection cable (Multi-AV cable, component cable, etc) is not connected properly. Make sure that the connection cable is connected to the proper jack. ➥pages 43-44 - When you are using the S-Video cable, make sure to connect red and white plugs of your Multi-AV cable separately since S-Video cable does not support audio. ➥pages 44, 46 - When you are using the component cable, make sure the red and white plugs of your component cable are connected. ➥pages 43-44

Symptom	Explanation/Solution
The image appears distorted on a TV.	• This happens when TV type of the HD camcorder is different from the TV. Set the TV type to match the aspect ratio of your TV. ➥page 70
You cannot view the image or hear the sound from a TV connected using the HDMI cable.	• Images will not be output from the HDMI jack if the material is copyright protected.

Connecting/Dubbing with other devices (Recorder, PC, Printer, etc)

Symptom	Explanation/Solution
You cannot dub correctly using the HDMI cable.	• You cannot dub images using the HDMI cable.
You cannot dub correctly using the Multi-AV cable.	• The Multi-AV cable is not connected properly. Make sure that the Multi-AV cable is connected to the proper jack, i.e. to the input jack of the device used for dubbing images from your camcorder. ➥page 46
Printouts cannot be made using a PictBridge printer.	• Your printer may not print images edited on a computer or recorded using other device. This is not an error.

troubleshooting

Connecting to a computer

Symptom	Explanation/Solution
The computer does not recognize your HD camcorder.	• You can not use the HD camcorder with a Macintosh. • Disconnect the USB cable from the computer and camcorder, restart the computer, then connect it again correctly.
Cannot play a movie file properly on a PC.	• A video codec is needed to play the file recorded on your HD camcorder. Install the software provided with your camcorder. ➥pages 87-88 Please install by using the software CD that came with this camcorder. We do not guarantee compatibility for different CD versions. • Make sure you insert the connector in the correct direction, and connect the USB cable to the USB jack on your camcorder firmly. • Disconnect the cable from the computer and camcorder, restart the computer. Connect it again properly.
Cannot use the provided software (DVD Suite) on a Macintosh computer.	• You cannot use DVD Suite with a Macintosh computer.
DVD Suite does not function properly.	• Exit the DVD Suite program, and restart the Windows computer.
The image or sound on your camcorder is not played on your computer properly.	• Movie playback or sound may stop temporarily depending on your computer. The movie or sound copied to your computer is not affected. • If your camcorder is connected to a computer that does not support Hi-speed USB (USB2.0), the image or sound may not be played correctly. The image and sound is copied to your computer are not affected.
The playback screen is paused or distorted.	• Check the system requirements to play a movie. ➥page 86 • Exit other all applications running on the current computer. • If a recorded movie is played on your camcorder connected to a computer, the image may not play smoothly, depending on the transfer speed. Please copy the file to your PC, and then play it back.

Overall operations

Symptom	Explanation/Solution
The date and time are incorrect.	• Has the camcorder been left unused for a long period of time? The backup built-in rechrgeable battery may be discharged. ➥page 25
The camcorder does not turn on, or does not operate by pressing any button.	• Reset the system (press the **RESET** button). ➥page 17

Menu

Symptom	Explanation/Solution
Menu items are grayed out.	• You cannot select grayed items in the current recording/playback mode. • There are some functions you cannot activate simultaneously. The following list shows examples of unworkable combinations of functions and menu items. • Menu and quick menu cannot be used in EASY Q mode. • The following menu cannot be used during recording; **"White Balance (Custom WB)," "Quality," "Wind Cut," "Digital Zoom,"** Storage selection, and Settings menu. Cannot use — Because of the following settings **"Scene Mode (AE)"** — **"Exposure; Manual"** **"Shutter; Manual"** **"Digital Zoom"** — **"Anti-Shake (EIS)," "Cont. Shot"**

specifications

Model name: SC-HMX10/HMX10A/HMX10C/HMX10N/HMX10CN/HMX10ED

System	
Video signal	NTSC
Picture compression format	H.264 (MPEG-4.AVC)
Audio compression format	AAC (Advanced Audio Coding)
Image device	1/4.5" CMOS (Complementary Metal-Oxide Semiconductor) (Max/Effective : 1.61M/1.56M pixels)
Lens	F1.8 10x (Optical), 2x (Digital) Electronic zoom lens
Focal length	3.3 ~ 33mm
Filter diameter	Ø30
LCD screen	
Size/dot number	2.7inch wide 230k
LCD screen method	TFT LCD
Connectors	
Composite output	1Vp-p (75Ω terminated)
Component output	Y: 1Vp-p, 75Ω, Pb/Pr, Cb/Cr: 0.350Vp-p, 75Ω
HDMI output	A type connector
Audio output	-7.5dBs (600Ω terminated)
USB output	Mini-B type connector
External MIC	Ø3.5 stereo
General	
Power source	DC 8.4V, Lithium Ion battery pack 7.4V
Power source type	Lithium Ion battery pack, Power supply (100V~240V) 50/60Hz
Power consumption (Recording)	3.9W (LCD on)
Operating temperature	0°~40°C (32°F~104°F)
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)
External dimensions (WxHxD)	Width 61.5 mm (2.42 inches), Height 67.5 mm (2.66 inches), Length 120.5mm (4.74 inches)
Weight	330g (0.72 lb, 11.64 oz) (Except for Lithium Ion battery pack)
Internal MIC	Omni-directional stereo microphone
Remote control	Indoors: greater than 15 m (49 ft) (straight line), Outdoors: about 5 m (16.4 ft) (straight line)

- These technical specifications and design may be changed without notice.

warranty

SAMSUNG
LIMITED WARRANTY

SAMSUNG Electronics America Inc. (SEA), warrants that this product is free from defective material and workmanship.
SEA further warrants that if product fails to operate properly within the specified warranty period and the failure is due to improper workmanship or defective material, SEA will repair or replace the product at it's option.
All warranty repairs must be performed by a SEA authorized service center. The name and address of the location nearest you can be obtained by calling toll free: 1-800 SAMSUNG (1-800-726-7864).
Labor
90 days carry-in
Parts
1 year

On carry-in models, transportation to and from the service center is the customer's responsibility.

The original dated sales receipt must be retained by the customer and is the only acceptable proof of purchase.
It must be presented to the authorized service center.

EXCLUSIONS (WHAT IS NOT COVERED)

This warranty does not cover damage due to accident, fire, flood and/or other acts of God; misuse, incorrect line voltage, improper installation, improper or unauthorized repairs, commercial use, or damage that occurs in shipping.
Exterior and interior finish, lamps, and glass are not covered under this warranty.
Customer adjustments which are explained in the instruction manual are not covered under the terms of this warranty.
This warranty will automatically be voided for any unit found with a missing or altered serial number. This warranty is valid only on products purchased in the United States and Puerto Rico.
Some States do not allow the exclusions or limitations of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center Samsung Electronics America, inc.

1-800-SAMSUNG (726-7864)

www.samsung.com/us

RoHS compliant

Our product complies with “The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment”, and we do not use the 6 hazardous materials- Cadmium(Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr +6), Poly Brominated Biphenyls (PBBs), Poly Brominated Diphenyl Ethers(PBDEs)- in our products.

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